

**VPDES PERMIT PROGRAM FACT SHEET**

FILE NO: 206

This document gives pertinent information concerning the VPDES Permit listed below. This permit is being processed as a **MINOR MUNICIPAL** permit.

1. **PERMIT NO.:** VA0065196 **EXPIRATION DATE:** March 15, 2010
  
2. **FACILITY NAME AND LOCAL MAILING ADDRESS** **FACILITY LOCATION ADDRESS (IF DIFFERENT)**  
  
Cardinal Village WWTP 6379 Lankford Highway  
6379 Lankford Hwy New Church, VA 23415  
New Church, VA 23415  
  
**CONTACT AT FACILITY:** **CONTACT AT LOCATION ADDRESS**  
**NAME:** Mr. Upshur J. Taylor **NAME:** Mr. Upshur J. Taylor  
**TITLE:** Owner **TITLE:** Owner  
**PHONE:** (757)-824-5989 **PHONE:** (757)-894-1999 cell ph.
  
3. **OWNER CONTACT: (TO RECEIVE PERMIT)** **CONSULTANT CONTACT:**  
**NAME:** Mr. Upshur J. Taylor **NAME:**  
**TITLE:** Owner **FIRM NAME:**  
**COMPANY NAME:** Cardinal Village **ADDRESS:**  
**ADDRESS:** 5021 Holland Road **PHONE:**  
New Church, VA 23415  
**PHONE:** (757) 824-5989
  
4. **PERMIT DRAFTED BY:** DEQ, Water Permits Regional Office  
  
Permit Writer(s): R. E. Smithson Date(s): 10/19/09  
Reviewed By: M. H. Sauer Date(s): 10/27/09
  
5. **PERMIT ACTION:**  
  
( ) Issuance (X) Reissuance ( ) Revoke & Reissue ( ) Owner Modification  
( ) Board Modification ( ) Change of Ownership/Name [Effective Date: ]
  
6. **SUMMARY OF SPECIFIC ATTACHMENTS LABELED AS:**  
  
Attachment 1 Site Inspection Report/Memorandum  
Attachment 2 Discharge Location/Topographic Map  
Attachment 3 Schematic/Plans & Specs/Site Map/Outfall Description  
Attachment 4 TABLE II - Effluent Monitoring/Limitations  
Attachment 5 Effluent Limitations/Monitoring Rationale/Suitable  
Data/Antidegradation/Antibacksliding  
Attachment 6 Closure Plan For Financial Assurance  
Attachment 7 Special Conditions Rationale  
Attachment 8 Receiving Waters Info./Tier Determination/STORET Data/Stream  
Modeling  
Attachment 9 TABLE III(a) and TABLE III(b) - Change Sheets  
Attachment 10 EPA Permit Checklist  
Attachment 11 Chronology Sheet  
Attachment 12 Correspondence

APPLICATION COMPLETE: 09/22/09 (VDH comments)

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7. PERMIT CHARACTERIZATION: (Check as many as appropriate)

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Existing Discharge | <input checked="" type="checkbox"/> Effluent Limited        |
| <input type="checkbox"/> Proposed Discharge            | <input checked="" type="checkbox"/> Water Quality Limited   |
| <input checked="" type="checkbox"/> Municipal          | <input type="checkbox"/> WET Limit                          |
| SIC Code(s) 4952                                       | <input type="checkbox"/> Interim Limits in Permit           |
| <input type="checkbox"/> Industrial                    | <input type="checkbox"/> Interim Limits in Other Document   |
| SIC Code(s)  | <input type="checkbox"/> Compliance Schedule in Condition   |
| <input type="checkbox"/> POTW                          | <input type="checkbox"/> Site Specific WQ Criteria          |
| <input type="checkbox"/> PVOTW                         | <input type="checkbox"/> Variance to WQ Standards           |
| <input checked="" type="checkbox"/> Private            | <input type="checkbox"/> Water Effects Ratio                |
| <input type="checkbox"/> Federal                       | <input type="checkbox"/> Discharge to 303(d) Listed Segment |
| <input type="checkbox"/> State                         | <input type="checkbox"/> Toxics Management Program Required |
| <input type="checkbox"/> Publicly-Owned Industrial     | <input type="checkbox"/> Toxics Reduction Evaluation        |
|  | <input type="checkbox"/> Storm Water Management Plan        |
|  | <input type="checkbox"/> Pretreatment Program Required      |
|  | <input type="checkbox"/> Possible Interstate Effect         |

8. RECEIVING WATERS CLASSIFICATION: River basin information.

Outfall No(s): 001

Receiving Stream: (Ditch) Utrib to Tunnels Mill Br. to Bullbegger Creek  
River Mile: 0.95  
Basin: Chesapeake Bay, Atlantic and Small Coastal  
Subbasin: N/A  
Section: 2a  
Class: III  
Special Standard(s): None  
Tidal: NO  
7-Day/10-Year Low Flow: 0 MGD  
1-Day/10-Year Low Flow: 0 MGD  
30-Day/5-Year Low Flow: 0 MGD  
Harmonic Mean Flow: 0 MGD

9. FACILITY DESCRIPTION: Describe the type facility from which the discharges originate.

Existing municipal discharge resulting from the discharge of treated domestic sewage.

10. LICENSED OPERATOR REQUIREMENTS: ☐ No ☒ Yes Class: Class IV (Class III following tertiary treatment upgrade)

11. RELIABILITY CLASS: I

12. SITE INSPECTION DATE: May 03, 2007 REPORT DATE: May 04, 2007

SEE ATTACHMENT 1

13. DISCHARGE(S) LOCATION DESCRIPTION: Provide USGS Topo which indicates the discharge location, significant (large) discharger(s) to the receiving stream, water intakes, and other items of interest.

Name of Topo: Hallwood Quad Quadrant No.: 142A SEE ATTACHMENT 2

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14. ATTACH A SCHEMATIC OF THE WASTEWATER TREATMENT SYSTEM(S) [IND. & MUN.]. FOR INDUSTRIAL FACILITIES, PROVIDE A GENERAL DESCRIPTION OF THE PRODUCTION CYCLE(S) AND ACTIVITIES. FOR MUNICIPAL FACILITIES, PROVIDE A GENERAL DESCRIPTION OF THE TREATMENT PROVIDED.

Narrative: Treatment consists of an extended aeration package plant, polishing pond, chlorination and dechlorination. Sludge is pumped and hauled by a septage hauler to Pocomoke City WWTP.

SEE ATTACHMENT 3 (CAN ALSO REFERENCE TABLE I)

15. DISCHARGE DESCRIPTION: Describe each discharge originating from this facility.

SEE TABLE I - SEE ATTACHMENT 3

16. COMBINED TOTAL FLOW:

TOTAL: .006 MGD (for public notice)

PROCESS FLOW: \_\_\_\_\_ MGD (IND.)

NONPROCESS/RAINFALL DEPENDENT FLOW: \_\_\_\_\_ (Est.)

DESIGN FLOW: .006 MGD (MUN.)

17. STATUTORY OR REGULATORY BASIS FOR EFFLUENT LIMITATIONS AND SPECIAL CONDITIONS:  
(Check all which are appropriate)

☒ State Water Control Law  
☒ Clean Water Act  
☒ VPDES Permit Regulation (9 VAC 25-31-10 et seq.)  
☒ EPA NPDES Regulation (Federal Register)  
\_\_\_\_\_  
EPA Effluent Guidelines (40 CFR 133 or 400 - 471)  
☒ Water Quality Standards (9 VAC 25-260-5 et seq.)  
\_\_\_\_\_  
Wasteload Allocation from a TMDL or River Basin Plan

18. EFFLUENT LIMITATIONS/MONITORING: Provide all limitations and monitoring requirements being placed on each outfall.

SEE TABLE II - ATTACHMENT 5

19. EFFLUENT LIMITATIONS/MONITORING RATIONALE: Attach any analyses of an outfall by individual toxic parameter. As a minimum, it will include: statistics summary (number of data values, quantification level, expected value, variance, covariance, 97th percentile, and statistical method); wasteload allocation (acute, chronic and human health); effluent limitations determination; input data listing. Include all calculations used for each outfall and set of effluent limits and those used in any model(s). Include all calculations/documentation of any antidegradation or anti-backsliding issues in the development of any limitations; complete the review statements below. Provide a rationale for limiting internal waste streams and indicator pollutants. Attach chlorine mass balance calculations, if performed. Attach any additional information used to develop the limitations, including any applicable water quality standards calculations (acute, chronic and human health).

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OTHER CONSIDERATIONS IN LIMITATIONS DEVELOPMENT:

VARIANCES/ALTERNATE LIMITATIONS: Provide justification or refutation rationale for requested variances or alternatives to required permit conditions/limitations. This includes, but is not limited to: waivers from testing requirements; variances from technology guidelines or water quality standards; WER/translator study consideration; variances from standard permit limits/conditions.

N/A

SUITABLE DATA: In what, if any, effluent data were considered in the establishment of effluent limitations and provide all appropriate information/calculations.

All suitable effluent data were reviewed.

ANTIDegradation REVIEW: Provide all appropriate information/calculations for the antidegradation review.

The receiving stream has been classified as **tier 1**; therefore, no further review is needed. Permit limits have been established by determining wasteload allocations which will result in attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses. *see attachment 8 (7910 = 0 dry ditch)*

ANTIBACKSLIDING REVIEW: Indicate if antibacksliding applies to this permit and, if so, provide all appropriate information.

There are no backsliding issues to address in this permit (i.e., limits as stringent or more stringent when compared to the previous permit).

SEE ATTACHMENT 5

20. SPECIAL CONDITIONS RATIONALE: Provide a rationale for each of the permit's special conditions.

SEE ATTACHMENT 7

21. TOXICS MONITORING/TOXICS REDUCTION AND WET LIMIT SPECIAL CONDITIONS RATIONALE: Provide the justification for any toxics monitoring program and/or toxics reduction program and WET limit.

N/A

22. SLUDGE DISPOSAL PLAN: Provide a description of the sludge disposal plan (e.g., type sludge, treatment provided and disposal method). Indicate if any of the plan elements are included within the permit.

This facility will have sludge pumped and hauled by Bundick Well & Pump septage hauler to a treatment plant in Pocomoke, MD. This plan has been included in the VPDES application (reference details in Form 2S) The standard special condition pertaining to this plan will be included in Part I of the permit.

23. MATERIAL STORED: List the type and quantity of wastes, fluids, or pollutants being stored at this facility. Briefly describe the storage facilities and list, if any, measures taken to prevent the stored material from reaching State waters.

NONE.

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24. **RECEIVING WATERS INFORMATION:** Refer to the State Water Control Board's Water Quality Standards [e.g., River Basin Section Tables (9 VAC 25-260-5 et seq.)]. Use 9 VAC 25-260-140 C (introduction and numbered paragraph) to address tidal waters where fresh water standards would be applied or transitional waters where the most stringent of fresh or salt water standards would be applied. Attach any memoranda or other information which helped to develop permit conditions (i.e. tier determinations, PReP complaints, special water quality studies, STORET data and other biological and/or chemical data, etc.

SEE ATTACHMENT 8: Tier determination, river mile designation

25. **303(d) Listed Segments:** Indicate if the facility discharges to a segment that is listed on the current 303(d) list and, if so, provide all appropriate information/calculations.

TMDLs are not included in this permit as the receiving waters are not listed on the 303(d) list.

26. **CHANGES TO PERMIT:** Use **TABLE III(a)** to record any changes from the previous permit and the rationale for those changes. Use **TABLE III(b)** to record any changes made to the permit during the permit processing period and the rationale for those changes [i.e., use for comments from the applicant, VDH, EPA, other agencies and/or the public where comments resulted in changes to the permit limitations or any other changes associated with the special conditions or reporting requirements].

SEE ATTACHMENT 9

27. **NPDES INDUSTRIAL PERMIT RATING WORKSHEET:**

N/A - This is a municipal facility.

28. **DEQ PLANNING COMMENTS RECEIVED ON DRAFT PERMIT:** Document any comments received from DEQ planning.

The discharge is in conformance with the existing planning documents for the area.

29. **PUBLIC PARTICIPATION:** Document comments/responses received during the public participation process. If comments/responses provided, especially if they result in changes to the permit, place in the attachment.

**VDH/DSS COMMENTS RECEIVED ON DRAFT PERMIT:** Document any comments received from the Virginia Dept. of Health and noted how resolved.

The VDH waived their right to comment and/or object the adequacy of the draft permit.

**EPA COMMENTS RECEIVED ON DRAFT PERMIT:** Document any comments received from the U.S. Environmental Protection Agency and noted how resolved.

EPA waived the right to comment and/or object to the adequacy of the draft permit.

**ADJACENT STATE COMMENTS RECEIVED ON DRAFT PERMIT:** Document any comments received from an adjacent state and noted how resolved.

Not Applicable.

**OTHER AGENCY COMMENTS RECEIVED ON DRAFT PERMIT:** Document any comments received from any other agencies (e.g., VIMS, VMRC, DGIF, etc.) and noted how resolved.

Not Applicable.

**OTHER COMMENTS RECEIVED FROM RIPARIAN OWNERS/CITIZENS ON DRAFT PERMIT:** Document

any comments received from other sources and note how resolved.

The application and draft permit have received public notice in accordance with the VPDES Permit Regulation, and no comments were received.

**PUBLIC NOTICE INFORMATION:** Comment Period:

Start Date

End Date

12/9/09  
1/8/10

Persons may comment in writing or by e-mail to the DEQ on the proposed reissuance of the permit within 30 days from the date of the first notice. Address all comments to the contact person listed below. Written or e-mail comments shall include the name, address, and telephone number of the writer, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The Director of the DEQ may decide to hold a public hearing if public response is significant. Requests for public hearings shall state the reason why a hearing is requested, the nature of the issues proposed to be raised in the public hearing and a brief explanation of how the requestor's interests would be directly and adversely affected by the proposed permit action.

All pertinent information is on file and may be inspected, and arrangements made for copying by contacting R. E. Smithson at: Department of Environmental Quality (DEQ), Tidewater Regional Office, 5636 Southern Boulevard, Virginia Beach, VA 23462. Telephone: 757-518-2106 E-mail: robert.smithsonjr@deq.virginia.gov

Following the comment period, the Board will make a determination regarding the proposed reissuance. This determination will become effective, unless the Director grants a public hearing. Due notice of any public hearing will be given.

30. **ADDITIONAL FACT SHEET COMMENTS/PERTINENT INFORMATION:**

Although the facility has not made tertiary treatment plant upgrades, it meets tertiary permit limits consistently.

A closure plan ,cost estimate figure to cover the plan and financial assurance mechanism to secure the cost was approved in 2004 and is updated for inflation each year.

Reduced effluent monitoring was considered/reviewed in the reissuance process.

ATTACHMENT 1

SITE INSPECTION REPORT/MEMORANDUM

WASTEWATER FACILITY INSPECTION REPORT

<b>FACILITY NAME:</b> Cardinal Village Lankford Highway, New Church, VA 23415		<b>INSPECTION DATE:</b> 10/8/2009	
<b>PERMIT No.:</b> VA0065196		<b>INSPECTOR:</b> Stephen J. Thomas	
<b>TYPE OF FACILITY:</b> <input checked="" type="checkbox"/> Municipal <input checked="" type="checkbox"/> Small Minor <input type="checkbox"/> Industrial <input type="checkbox"/> Federal		<b>REPORT DATE:</b> 10/9/2009	
		<b>TIME OF INSPECTION:</b>	1350 Arrival      Departure
		<b>TOTAL TIME SPENT (including prep &amp; travel)</b>	6 Hours
<b>PHOTOGRAPHS:</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<b>UNANNOUNCED INSPECTION?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>REVIEWED BY / Date:</b> Kenneth T. Raum			
<b>PRESENT DURING INSPECTION:</b> Upsher Taylor, Emory Taylor			

**TECHNICAL INSPECTION**

1. Has there been any new construction? • If so, were plans and specifications approved? Comments:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. Is the Operations and Maintenance Manual approved and up-to-date? Comments:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3. Are the Permit and/or Operation and Maintenance Manual specified licensed operator being met? Comments: Mr. John Cline, a Class 1 Licensed Operator overseas the operation of this plant.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
4. Are the Permit and/or Operation and Maintenance Manual specified operator staffing requirements being met? Comments:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5. Is there an established and adequate program for training personnel? Comments:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6. Are preventive maintenance task schedules being met? Comments:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
7. Does the plant experience any organic or hydraulic overloading? Comments:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
8. Has there been any bypassing or overflows since the last inspection? Comments:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
9. Is the standby generator (including power transfer switch) operational and exercised regularly? Comments: N/A The facility has never had a generator.	<input type="checkbox"/> Yes <input type="checkbox"/> No
10. Is the plant alarm system operational and tested regularly? Comments: Plant does not have an alarm system.	<input type="checkbox"/> Yes <input type="checkbox"/> No



**EFFLUENT FIELD DATA:**

Flow	<u>&lt;.003</u> MGD	Dissolved Oxygen	<u>6.8</u> mg/L	TRC (Contact Tank)	<u>1.2</u> mg/L
pH	<u>7.7</u> S.U.	Temperature	<u>15.9</u> °C	TRC (Final Effluent)	<u>0.0</u> mg/L
<b>Was a Sampling Inspection conducted?</b> <input type="checkbox"/> Yes (see Sampling Inspection Report) <input type="checkbox"/> No					

**CONDITION OF OUTFALL AND EFFLUENT CHARACTERISTICS:**

- Type of outfall: ☒ Shore based ☐ Submerged Diffuser? ☐ Yes ☒ No
- Are the outfall and supporting structures in good condition? ☒ Yes ☐ No
- Final Effluent (evidence of following problems):
 

<input type="checkbox"/> Sludge bar	<input type="checkbox"/> Grease
<input type="checkbox"/> Turbid effluent	<input type="checkbox"/> Visible foam
<input type="checkbox"/> Unusual color	<input type="checkbox"/> Oil sheen

The final effluent appeared clear with no visible solids during the inspection..
- Is there a visible effluent plume in the receiving stream? ☐ Yes ☒ No
- Receiving stream:
 

<input checked="" type="checkbox"/> No observed problems	<input checked="" type="checkbox"/> Indication of problems (explain below)
--	--

Comments: The receiving stream appeared normal, no solids were visible on the stream bottom. No algae blooms present. The stream was full of vegetative litter.

**REQUIRED CORRECTIVE ACTIONS:**

No actions are required at this time.

**NOTES and COMMENTS:**

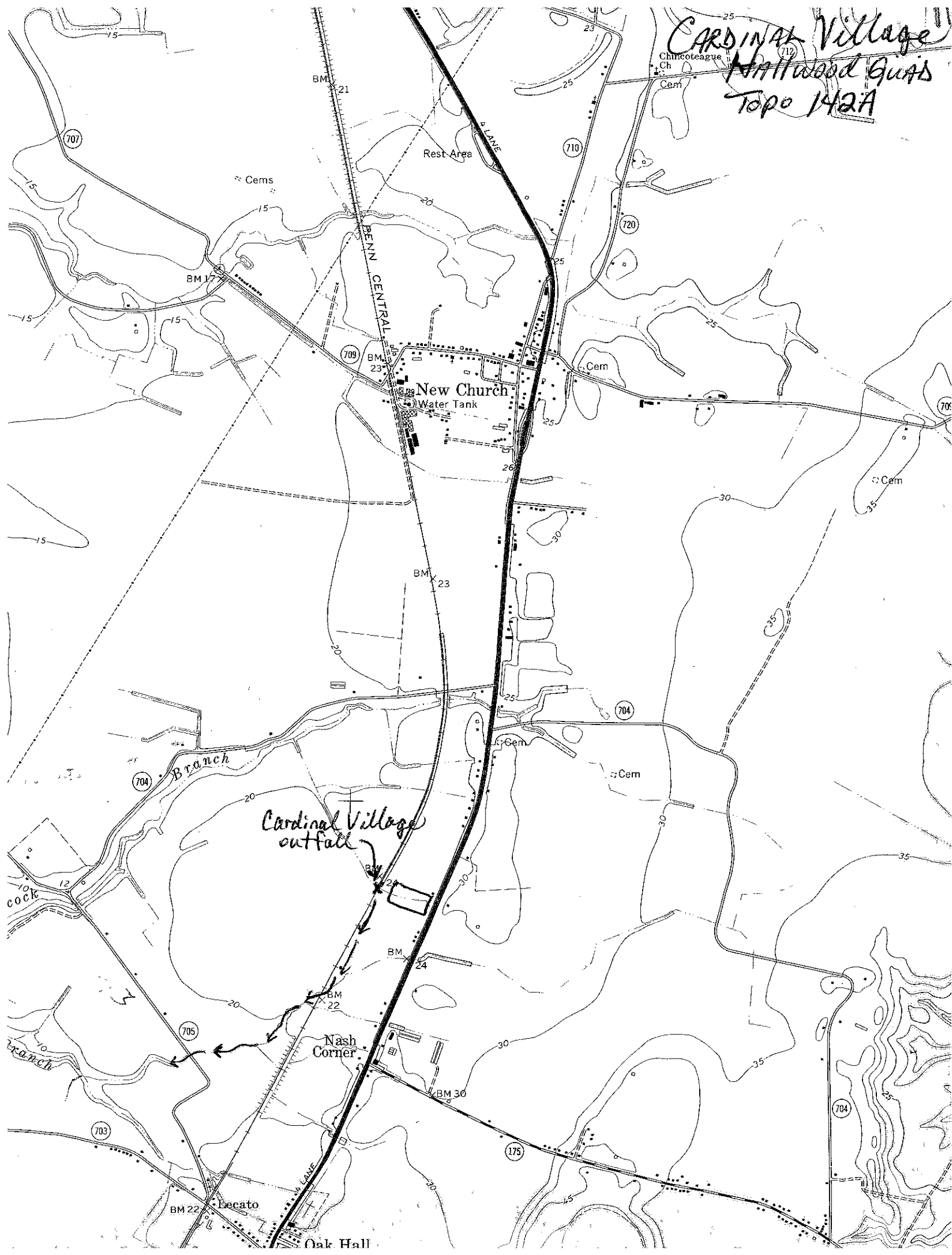
This wastewater treatment facility was found in overall satisfactory operating condition during the inspection. The plant appears to be producing an effluent that currently meets permit requirements. This facility has been in operation for at least 30 years and is showing signs of aging. The plant will need a lot of TLC in the upcoming years to maintain treatment effeteness. The current plant will probably need to be replaced in the future.

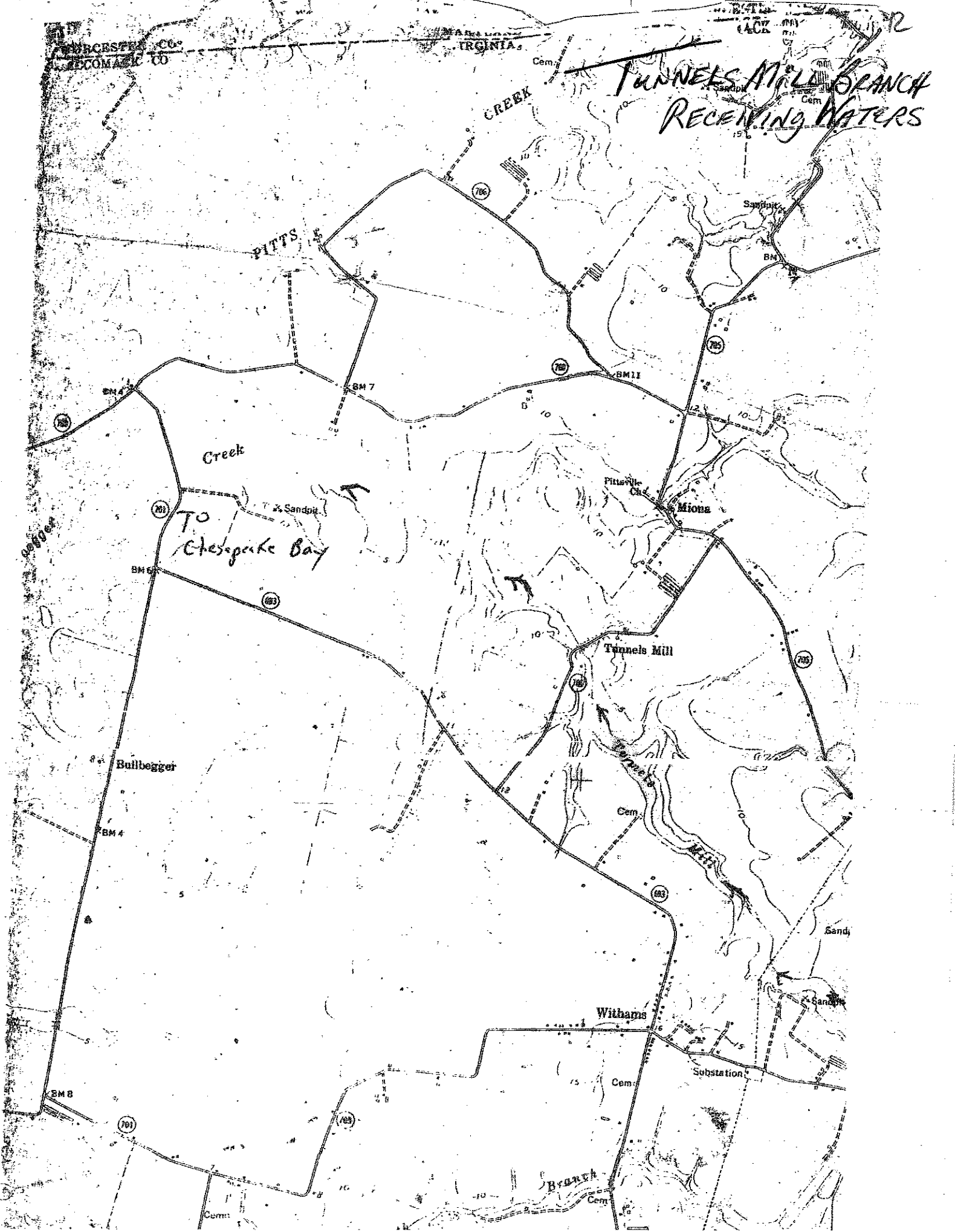
I would like to thank Mr. Upshur Taylor for his cooperation and assistance during the inspection.

ATTACHMENT 2

DISCHARGE LOCATION/TOPOGRAPHIC MAP

*Cardinal Village*  
*Willwood Guad*  
*Topo 142A*





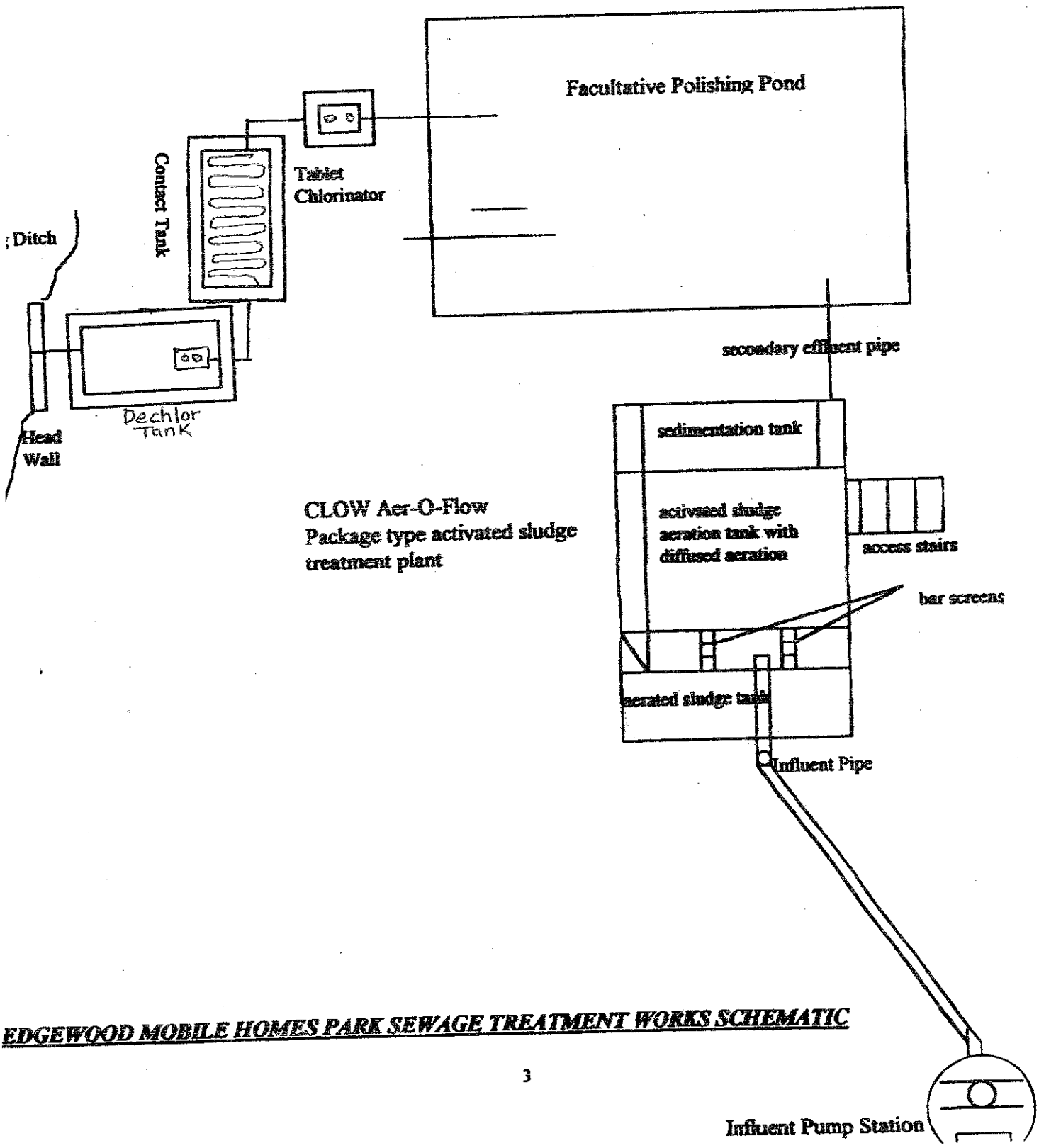
# TUNNELS MILL BRANCH RECEIVING WATERS

TO  
Chesapeake Bay

ATTACHMENT 3

SCHEMATIC/PLANS & SPECS/SITE MAP/  
TABLE I-Discharge/Outfall Description

VPDES NO: VA0065196



**EDGEWOOD MOBILE HOMES PARK SEWAGE TREATMENT WORKS SCHEMATIC**

TABLE I

NUMBER AND DESCRIPTION OF OUTFALLS

OUTFALL NO.	DISCHARGE LOCATION	DISCHARGE SOURCE (1)	TREATMENT (2)	FLOW (3)
001	37°57'13.7"N 75°32'23.5"W	Domestic wastewater from a small mobile home park	Treatment consists of an extended aeration package treatment plant, polishing pond, chlorination, dechlorination. Sludge is pumped and hauled to a septage lagoon.	.006 MGD

- (1) List operations contributing to flow  
 (2) Give brief description, unit by unit  
 (3) Give maximum 30-day average flow for industry and design flow for municipal

## ATTACHMENT 4

## TABLE II - EFFLUENT MONITORING/LIMITATIONS



TABLE II - MUNICIPAL EFFLUENT LIMITATIONS/MONITORING  
ATTACHMENT 4

OUTFALL # 001 DESIGN FLOW: .006 MGD  
Outfall Description: Domestic wastewater from a mobile home park  
SIC CODE: 7011

(X) Final Limits ( ) Interim Limits		Effective Dates - From:			Reissuance		To:		Expiration	
PARAMETER & UNITS	BASIS FOR LIMITS	DESIGN FLOW MULTIPLIER	EFFLUENT LIMITATIONS				MONITORING REQUIREMENTS			
			MONTHLY AVERAGE	WEEKLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE		
Flow (MGD) [a]	3	.006	NL	NA	NA	NL	1/Day	Estimate		
pH (S.U.)	3		NA	NA	6.0	9.0	1/Day	Grab		
CBOD5 (mg/l) [c]	3		10	15	NA	NA	1/Month	Grab		
CBOD5 (kg/d)	3	.006	0.23	0.34	NA	NA	1/Month	Grab		
TSS (mg/l) [c]	3		10	15	NA	NA	1/Month	Grab		
TSS (kg/d)	3	.006	0.23	0.34	NA	NA	1/Month	Grab		
TRC (mg/l) [b] [c]	2	.006	.0080	.010	NA	NA	1/Day	Grab		
D.O. (mg/l)	3		NA	NA	6.0	NA	1/Day	Grab		
Total Kjeldahl Nitrogen (TKN) (mg/l) [c]	3		3.0	4.5	NA	NA	1/Month	Grab		
Total Kjeldahl Nitrogen (TKN) (kg/d)	3	.006	0.070	0.10	NA	NA	1/Month	Grab		

TABLE II - MUNICIPAL EFFLUENT LIMITATIONS/MONITORING  
ATTACHMENT 4

- [a] See Part I.C.6. for exceeding 95% of the design capacity 3 months consecutively.
- [b] See Part I.B. for additional chlorine monitoring instructions
- [c] See Parts I.C.7. and I.C.8. for quantification levels and reporting requirements, respectively.

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

Upon reissuance of the permit, Discharge Monitoring Reports (DMRs) shall be submitted to the regional office at the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then "no discharge" shall be reported on the DMR.

The bases for the limitations codes are:

1. Technology (e.g., Federal Effluent Guidelines)
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment

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**TABLE II - MUNICIPAL MINOR EFFLUENT LIMITATIONS**

Attachment 4 continued

Final Chlorine Limitations Effective Dates -

From: permit reissuance

To: permit expiration

TRC **	AFTER CL2 CONTACT TANK (Dechlor. Required)			AFTER DECHLORINATION		AFTER CL2 CONTACT TANK (Dechlor. Not Required)				
	MIN.	EXC.	INST. MIN.	WKLY AVG.	INST. MAX.	PERMIT RANGE	EXC	REPORT-ING RANGE	EX C.	TECH. MAX.
a) Non-Detect. Dechlor. Required	1.0	3	0.6 mg/l	.010 mg/l	---	NA	NA	NA	NA	NA
b) Detect. Dechlor. Required	---	---	---	---	---	NA	NA	NA	NA	NA
c) No Dechlor.	NA	NA	NA	NA	NA	---	---	---	---	---

\*Totalizing, Indicating & Recording Equipment

\*\* --Chlorine mass balance  $C_w$  (W for Tidal systems): check one

☒ a)  $C_w < 0.1$  mg/l [dechlor. required, non-detectable format]

☐ b)  $0.1 \text{ mg/l} \leq C_w < 2.0$  mg/l (2.5 mg/l for PWS, Shellfish waters) [dechlor. required, detectable format]

☐ c)  $C_w > 2.0$  mg/l (2.5 mg/l for PWS, Shellfish waters) [dechlor. not required, include a restrictive technology max. value]

The design flow of this treatment facility is 0.006 MGD.

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

See Part I.B. for additional TRC limitations.

ATTACHMENT 5

EFFLUENT LIMITATIONS/MONITORING  
RATIONALE/SUITABLE DATA/  
ANTIDEGRADATION/ANTIBACKSLIDING

VPDES PERMIT PROGRAM

## Rationale for Effluent Limitations and Monitoring

Monitoring frequency for CBOD5, TSS, and TKN will be 1/month and all other parameters will be monitored 1/D, based upon a design flow of 0.006 MGD and best professional judgment. The following limitations were based upon best professional judgment, with the exception of TRC, which was based upon water quality standards.

OUTFALL 001: Final outfall pipe (Unnamed Tributary to Tunnels Mill Branch to Bullbegger Cr.)

Flow: No limit; monitoring 1/day, estimate - standard requirement for a municipal permit with this design flow.

pH: Minimum of 6.0 s.u., maximum of 9.0 s.u. - BPJ to protect water quality in the receiving stream.

**CBOD5**

& TSS: Monthly average limit of 10 mg/l (0.23 kg/d) and a weekly average limit of 15 mg/l (0.34 kg/d) were based upon best professional judgment and OWPP guidance (reference attachment 8, pages 44-50 for details and basis); grab sample

TKN: Monthly average limit of 3.0 mg/l (0.070 kg/d) and a WEEKLY avg. limit of 4.5 mg/l (0.10 kg/d) were based upon best professional judgment and OWPP guidance (reference attachment 8, pages 44-50 for details and basis); grab sample.

D.O.: Limitation of 6.0 mg/l minimum is based upon BPJ to protect water quality; grab sample.

TRC: Limits of 0.0080 mg/l monthly average and 0.010 mg/l weekly average are included in this permit based upon modeling results (reference attachment 8, pages 39-43). This is in accordance with the VPDES Permit Manual.

No ammonia limitation is needed since a TKN limit of 3.0 mg/l protects the receiving stream from ammonia-N toxicity (page 31).

TMDLs are not included in this permit.

ANTIDegradation REVIEW

The receiving stream has been classified as tier 1; therefore, no further review is needed. Permit limits have been established by determining wasteload allocations which will result in attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses.

There are *no antidegradation issues* to address in this permit reissuance.

ATTACHMENT 6

CLOSURE PLAN FOR FINANCIAL ASSURANCE  
COST ESTIMATES INCLUDED

**CARDINAL VILLAGE**  
**WASTEWATER TREATMENT**  
**PLANT**  
**CLOSURE PLAN**

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## Attachments

1. Bundick Well & Pump Service Letter
2. Sludge Hauling Route
3. Benny C. Hall & Son Service Letter



## 1.0 INTRODUCTION

Cardinal Village Mobile Home Park is located in Accomack County, Virginia, owned by Mr. Upshur J. Taylor. In accordance with the VPDES Permit Renewal requirements this plan has been prepared to provide specific direction related to the closure of the Wastewater Treatment Plant and the current estimated costs associated with the closure. Upon completion of this plan, the area formally occupied by the wastewater plant will become an open grass covered green area.

## 2.0 FACILITY DESCRIPTION

The plant is described as a 6000-gpd secondary treatment package plant with chlorination and dechlorination. It operates under VPDES Permit No. VA0065196, discharging into an unnamed ditch to Tunnels Mill Branch which flows to Bullbeggar Creek and then to the Chesapeake Bay. The plant is a self-contained metal unit.

## 3.0 CLOSURE PLAN

In the event of a closure of this plant the owner intends to hire a licensed contractor to complete this plan. The contractor will be responsible for all tasks associated with the plan and for obtaining all permits from Accomack County as required.

### 3.1 Tank Cleaning

All liquids and solids will be removed by means of a septic tank pump truck and disposed Of at Pocomoke Town Facility, Pocomoke City, Md. (See attached letter) (Permit # 09-100-0002) will perform this task.

All surfaces will be high pressure

washed and disinfected with a spray on solution of sodium hypochlorite at 200 PPM.

Following disinfection all surfaces and equipment will be washed down with potable water. Rinse water will be dechlorinated with a Sodium Bisulfate Solution and disposed of in the sanitary sewer.

### 3.2 Demolition and Final Disposal

After tank cleaning, influent & effluent pipes will be physically disconnected and capped. All mechanical and electrical equipment and accessories will be removed and properly disposed of. The metal structure which is the plant will then be cut in to scrap and disposed of properly. The excavated site will then be backfilled with sand fill and capped with 3" of top soil.

### 3.3 Site Handling and Land Use After Closure

Preceding any land disturbance, erosion and sediment control measures will be implemented as required. After tank removal, the tank site will be back-filled with sand fill and top soil. The polishing pond will be filled in to grade as required with sand fill and top soil. The entire area will be brought to the existing predominant grade of the surrounding area with the Contractor ensuring that no ponding of water can occur on the site after final grade is established. The site will be seeded with a blend of fescue and rye grasses at an application rate of 150 pounds per acre and covered with straw.

### 4.0 CERTIFICATION

Upon completion of the closure, the owner or his designated representative shall verify the work was completed in accordance with the plan and provide written verification to both the Virginia Department of Health and Department of Environmental Quality.

### 5.0 COST ESTIMATE

It is estimated that to complete this plan at the time of its preparation will cost the owner \$5,510.00. This estimate includes \$1310.00 to Bundick Well & Pump Co. to clean, disinfect, and dispose remaining liquids and \$4,200.00 to Benny C. Hall & Son for excavation and burial of pump station and package plant, filling pond, grading to existing ground level, and seeding.

### 6.0 HAULING ROUTE

From Cutler's Court Road travel north on Route 13 and turn left on Old Virginia Road and turn left on Dunn Swamp Road and turn left into Pocomoke Town Facility, Pocomoke City, Md.

Trade Service Operations  
3rd Floor  
500 First Avenue  
Pittsburgh, PA 15219  
Mail Stop: P7-PFSC-03-T

Telephone: 1-800-682-4589

27



DATE: SEPTEMBER 15, 2009

DEPARTMENT OF ENVIRONMENTAL QUALITY  
(DEQ) P.O. BOX 1105  
629 E. MAIN STREET  
RICHMOND VA 23218

NOTICE OF AUTOMATIC EXTENSION

---

OUR REFERENCE:	18107235-00-000
TRANSACTION NUMBER:	5
APPLICANT:	UPSHUR J TAYLOR

---

THIS NOTICE IS TO ADVISE YOU THAT THE EXPIRATION DATE OF THE REFERENCED LETTER OF CREDIT NUMBER 18107235-00-000 HAS BEEN EXTENDED TO JANUARY 25, 2011.

THIS IS NOT TO BE CONSIDERED AS AN AMENDMENT TO THE LETTER OF CREDIT.  
THIS IS FOR INFORMATION PURPOSES ONLY.

PNC BANK, NATIONAL ASSOCIATION  
GLOBAL TRADE SERVICE OPERATIONS

THIS IS A COMPUTER GENERATED DOCUMENT; A MANUAL SIGNATURE IS NOT REQUIRED.

**Bundick Well & Pump Company**

P.O. Box 15  
Painter, VA 23420

February 11, 2009

To: Upshur J. Taylor  
re: Cardinal Village Mobile Home Park

From: Bundick Well & Pump Company  
P.O.Box 15  
Painter, VA 23420

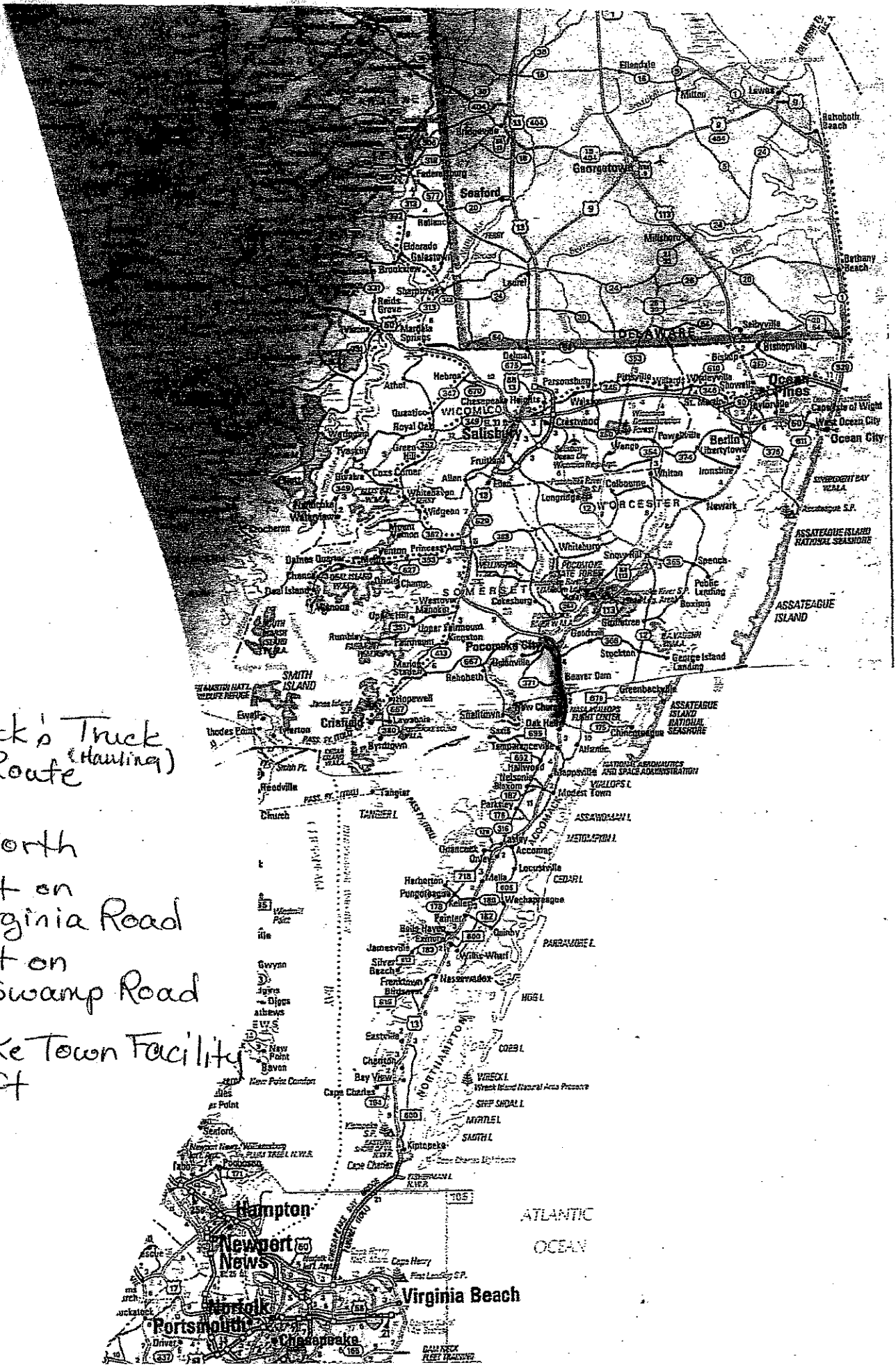
Bundick Well and Pump Company (Permit No. 09-100-0002) agrees to pump Cardinal Village and haul waste to the Pocomoke Town Facility located on Dunn Swamp Road, Pocomoke City, Md.

Waste Sludge is placed in a sludge holding tank until the tank is full. Waste tank is then emptied by our pumper truck at the rate of \$160.00 per 2000 gallon truck load. Sludge is taken to Pocomoke Town Facility, Pocomoke City, Md. For final disposal.

To properly clean, disinfect & dispose of remaining liquids of the pump station and package treatment plant the cost would be \$1,150.00.

If you have any questions please feel free to call 757-442-5555 or 757-824-3555.

Sincerely  
Bundick Well & Pump Co.



Bundick's Truck  
(Hauling)  
Route

Rt. 13 North  
Turn left on  
Old Virginia Road  
Turn left on  
Dunn Swamp Road  
Pocomoke Town Facility  
on left

Hampton  
Newport News  
Portsmouth  
Chesapeake  
Virginia Beach

PGN 206  
30



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219

Mailing address: P.O. Box 1105, Richmond, Virginia 23218

Fax (804) 698-4500 TDD (804) 698-4021

[www.deq.virginia.gov](http://www.deq.virginia.gov)

David K. Paylor  
Director

(804) 698-4000  
1-800-592-5482

L. Preston Bryant, Jr.  
Secretary of Natural Resources

February 21, 2008

Mr. Upshur J. Taylor  
Cardinal Village Mobile Home Park  
5021 Holland Rd.  
New Church, VA 23415



**RE: VPDES Permit No. VA0065196, Cardinal Village**

Dear Mr. Taylor:

The Virginia Department of Environmental Quality has reviewed letter of credit #18107235-00-000 issued through PNC Bank to demonstrate financial capability for privately owned sewerage systems owned and/or operated in the Commonwealth of Virginia. This document has been prepared in accordance with 9 VAC 25-650-10, Closure Plans and Demonstration of Financial Capability (the Regulation).

Please note that the obligation to update your financial assurance mechanism is an annual one. The Regulation requires an owner/operator to update the cost estimate annually for inflation within sixty days prior to the anniversary date of the mechanism. Your anniversary date is **January 25, 2009**. The cost estimate must be adjusted for inflation no later than November 25, 2008. The cost estimate is adjusted by multiplying the current cost estimate by the current year's inflation factor. You may call the Office of Financial Assurance at (804) 698-4006 sixty days prior to the effective date to obtain the inflation factor.

**\$5,497 x 2009 inflation factor = 2009 Adjusted Cost Estimate**

If the 2009 adjusted cost estimate exceeds the amount of the letter of credit then you must submit either a new letter of credit or an amendment to the existing letter of credit in the amount of the adjusted cost estimate to the Department by January 25, 2009. If you have any questions regarding the financial assurance requirements, please contact me at (804) 698-4006 (toll free in Virginia 800-592-5482 ext. 4006) or via email at [gstrudd@deq.virginia.gov](mailto:gstrudd@deq.virginia.gov). Thank you for your time and consideration in this matter

Sincerely,

Scott Rudd  
Financial Assurance Manager

c: Robert Smithson DEQ/TRO  
James McConathy DEQ/TRO

**BENNY C. HALL & SON**  
**8013 LONG LANE**  
**TEMPERANCEVILLE, VA 23442**

February 9, 2009

To: Upshur J. Taylor  
Cardinal Village Mobile Home Park

Re: Cost Estimate

The estimated cost for excavator work will be at the rate of \$200.00 per hour for 16 hours for a total of \$3,200.00. This will be for extracting pump station and package treatment plant and burial of the same using the existing berm that surrounds the pond which is approximately 5 1/2 - 6 feet in height and approximately 30 feet wide on a taper. This will be more than enough to fill the pond back in and the holes where the treatment package plant and lift station are located. For leveling to existing grade and reseeding the cost would be \$1000.00. Total bill \$4,200.00.

ATTACHMENT 7

SPECIAL CONDITIONS RATIONALE



VPDES PERMIT PROGRAM  
LIST OF SPECIAL CONDITIONS RATIONALE  
Attachment 7

B. Additional Total Residual Chlorine (TRC) Limitations and Monitoring Requirements

Rationale: Required by Water Quality Standards, 9VAC 25-260-170, Fecal coliform bacteria; other waters. Also, 40 CFR 122.41(e) requires the permittee, at all times, to properly operate and maintain all facilities and systems of treatment in order to comply with the permit. This ensures proper operation of chlorination equipment to maintain adequate disinfection.

C. OTHER REQUIREMENTS OR SPECIAL CONDITIONS

C.1. Sludge Reopener

Rationale: Required by the VPDES Permit Regulation, 9 VAC 25-31-220 C., and 40 CFR 122.44 (c)(4), which note that all permits for domestic sewage treatment plants (including sludge-only facilities) include any applicable standard for sewage sludge use or disposal promulgated under section 405(d) of the Clean Water Act.

C.2. Licensed Operator Requirement

Rationale: The Permit Regulation, 9 VAC 25-31-200 D and Code of Virginia 54.1-2300 et. seq., Rules and Regulations for Waterworks and Wastewater Works Operators (18 VAC 160-20-10 et seq.) requires licensure of operators.

C.3. Reliability Class

Rationale: Required by Sewage Collection and Treatment Regulations, 12 VAC 5-581-20 and 120 for all municipal facilities.

C.4. Financial Assurance and Disclosure to Purchasers

Rationale: Required by Code of Virginia § 62.1-44.18:3 and the Board's Financial Assurance Regulation, 9 VAC 25-650-10 et seq.

C.5. CTC, CTO and O & M Manual Requirements

Rationale: Required by the State Water Control Law, Section 62.1-44.19; the Sewage Collection and Treatment Regulations (12 VAC 5-581 et seq); Section 401 of the Clean Water Act; 40 CFR 122.41(e); and the VPDES Permit Regulation (9 VAC-25-31-190E).

C.6. 95% Design Capacity Notification

Rationale: Required by the VPDES Permit Regulation, 9 VAC 25-31-200 B.2. for all POTW and PVOTW permits. Best professional judgement is used to apply this condition to other (private) municipal treatment facilities.

C.7. Quantification Levels Under Part I.A.

Rationale: States are authorized to establish monitoring methods and procedures to compile and analyze data on water quality, as per 40 CFR part 130, Water Quality Planning and Management, subpart 130.4.

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VPDES PERMIT PROGRAM  
LIST OF SPECIAL CONDITIONS RATIONALE  
Attachment 7 continued

C.8. Compliance Reporting Under Part I.A.

Rationale: Defines reporting requirements for toxic parameters with quantification levels and other limited parameters to ensure consistent, accurate reporting on submitted reports.

C.9 Sludge Management Plan

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-420, and 40 CFR 503.1 specify the purpose and applicability for sludge management plans. The VPDES Permit Regulation, 9 VAC 25-31-100 J.4., also sets forth certain detailed information which must be included in a sludge management plan. The VPDES sewage sludge permit application form and its attachments constitute the sludge management plan and will be considered for approval with the VPDES permit. In addition, the Biosolids Use Regulation, 12 VAC 5-585-330 and 340, specifies the general purpose and control requirements for an O&M manual in order to facilitate proper O&M of the facilities to meet the requirements of the regulation.

C.10. Preventive Maintenance Plan

Rationale: The Sewerage Collection and Treatment Regulation (12 VAC 5-581-360) requires that the sewage treatment works 1) shall be provided with sufficient duplication or alternative operation so that the average daily design flow may be treated/managed in accordance with reliability requirements; 2) have sufficient spare parts on site to ensure continuous operability of essential unit operations and 3) have a regular program of preventive maintenance where a minimum preventative maintenance system has been established and documented in the facility's Operations and Maintenance Manual.

ATTACHMENT 8

RECEIVING WATERS INFO./  
TIER DETERMINATION/STORET DATA/  
STREAM MODELING

MEMORANDUM

Department of Environmental Quality  
Tidewater Regional Office

5636 Southern Boulevard

Virginia Beach, VA 23462

SUBJECT: VPDES Application Requests  
TO: Stephen Cioccia, TRO  
FROM: *RESMITHSON*, TRO  
DATE: *9/18/09*  
COPIES: TRO File - facility #206, PPP

An application has been received for the following facility:

VPDES #: *VA0065196* Facility Name: *Cardinal Village WWTTP*

Topo Map Name: *Hallwood Quad 142A*

Receiving Stream: *UTRIS to Tunnels Mill Br. to Bullbagger Creek*  
[Must be provided for each outfall included in this request or request will be returned]

Attached is a Topographic Map showing facility property boundaries and outfall location(s) for those included in this request. [MUST be provided or request will be returned]

Attached is a stream data Request Form (if data is requested).

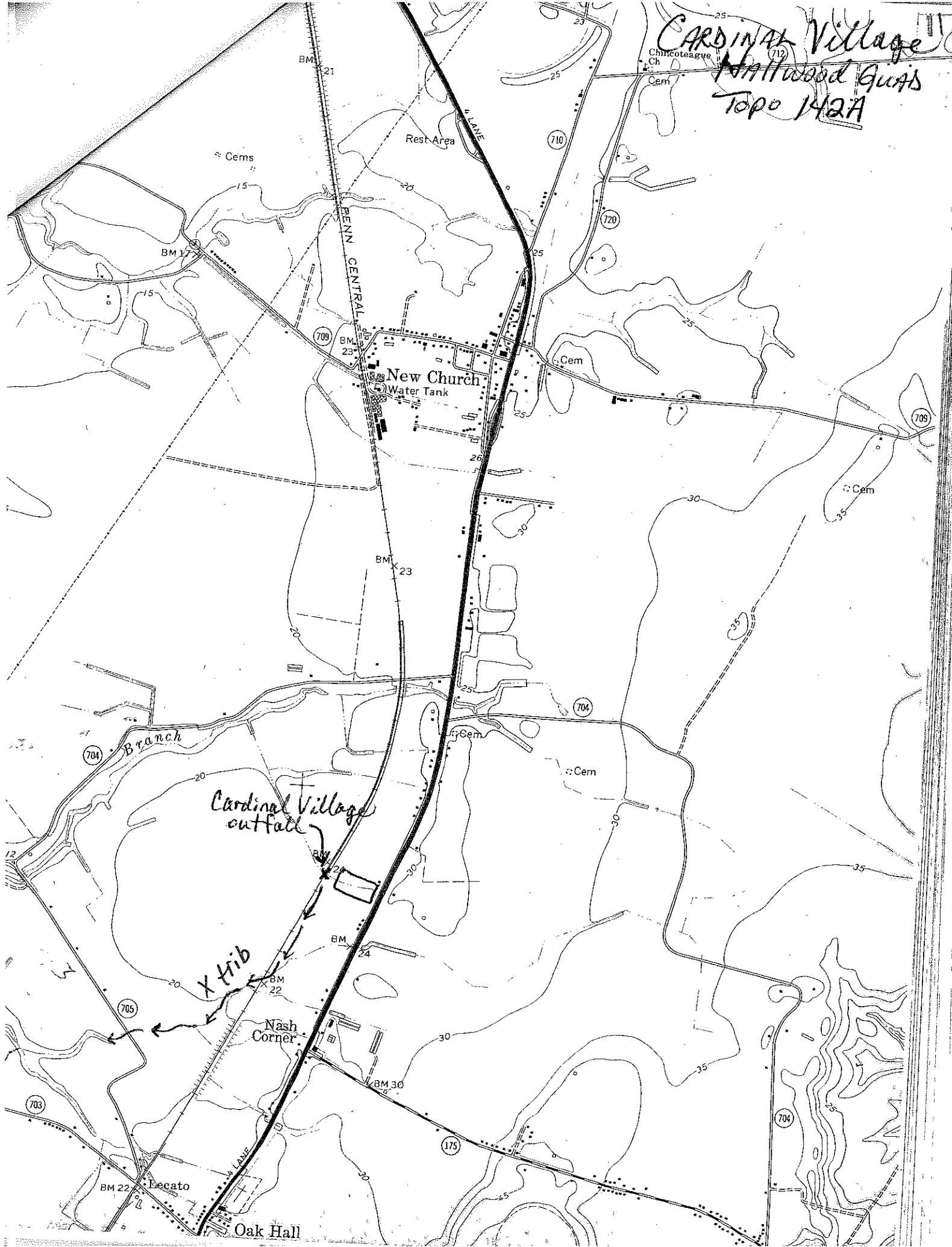
We request the following information from you:

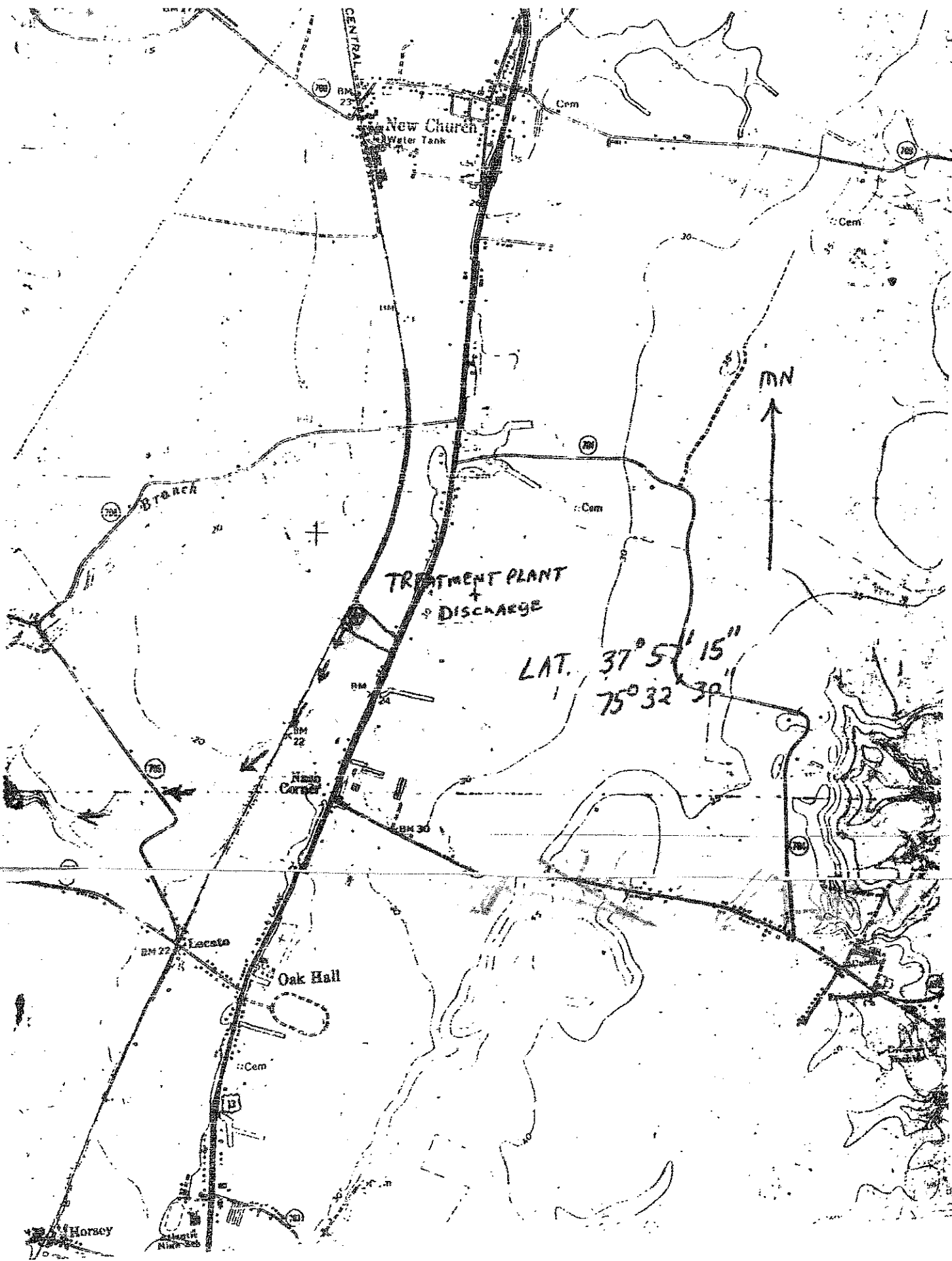
1. ☒ Tier Determination. Tier: *1 (discharge to receiving stream)*  
*Not* Please include a basis for the tier determination. *(with 7610 ± 0)*
2. *requested* Stream Data Requested for outfall(s). \_\_\_\_\_  
["STREAM DATA RETRIEVAL REQUEST FORM" MUST be completed & included]
3. ☒ Is this facility mentioned in a Management Plan?  
\_\_\_\_\_ No ☒ Yes \_\_\_\_\_ No, but will be included when the Plan is updated.
4. ☒ Are limits contained in a Management Plan?  
\_\_\_\_\_ No ☒ Yes (If Yes, Please include the basis for the limits.)
5. ☒ Indicate outfall(s) which discharge directly to an impaired (Category 5) stream segment? *None*
6. ☒ Are outfall(s) WLAs contained in an approved TMDL?  
☒ No \_\_\_\_\_ Yes (If Yes, Please include the WLAs)

Return Date Requested: *10/2/09*

Date Returned: *10/2/09*

*Cardinal Village*  
*Millwood Guas*  
*Topo 142A*





Until further guidance is provided by OWRM Permits, assessment of waters for NH<sub>3</sub> should be based upon OWRM Guidance No. 93-015 from Larry G. Lawson, dated June 22, 1993.

The above guidance specifies that the ambient NH<sub>3</sub> data should be compared to the NH<sub>3</sub> standard (calculated using 90th percentile of ambient data for pH and temperature of that segment) and by using the "STANDARDS.EXE Program" developed by OWRM Permits Modelling. (These environmental conditions are considered critical design conditions to protect water quality and to comply with WQS.) If the 97th percentile of the in-stream data is greater than either of the calculated NH<sub>3</sub> standards (chronic or acute), then OWRM considers the standard is being violated and the segment is WQL.

#### 2.4.7 Wasteload Allocations Where The 7Q10 Is Zero Or Minimal

A discharge to a water course with a 7Q10 of zero or near zero would be required to have effluent limits that would comply with water quality standards, at a minimum. The discharge would have to be "self sustaining" so to comply with water quality standards. Therefore, the discharge would be WQL and the receiving water course with a 7Q10 of zero near zero would be considered a tier 1 segment.

Dry-ditch  
X = Tier 1

A discharge to a tier 1 water that empties into a tier 2 water would have to be evaluated for antidegradation at the point of confluence of the two water courses, if the discharge is in close enough proximity to impact the tier 2 water. In the above scenario, antidegradation requirements to protect tier 2 waters may apply to a discharge to a tier 1 water. Therefore, effluent limits may be more stringent than required by the numerical water quality standards.

If a discharge occurs to a dry ditch or tributary that empties into a free flowing stream and the distance from the discharge to the next confluence is too short to model (based upon the current modelling programs), then the discharge should be modelled as if it occurs directly to the free flowing stream.

#### 2.4.8 Estuaries - Wasteload Allocations & TMDL Development

Similar to freshwater streams, water quality wasteload allocations (WQWLAs) and TMDLs in all tidal influenced waters will be expressed as a mass limitation for the conventional parameters (BOD<sub>5</sub>, cBOD<sub>5</sub>, TKN, and NH<sub>3</sub>) and as a concentration for toxics.

Tidal freshwater segments and transition zone segments identified

DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER DIVISION  
OFFICE OF WATER RESOURCE MANAGEMENT  
  
(SECOND DRAFT)  
GUIDANCE MANUAL  
  
FOR THE  
VIRGINIA WATER QUALITY MANAGEMENT PLAN

March 4, 1994

Attachment 1-2



## Small Coastal and Chesapeake Bay

TABLE B2 - EASTERN SHORE WASTELOAD ALLOCATIONS

NAME	RECEIVING STREAM OR ESTUARY	INTERIM WASTELOAD ALLOCATIONS <sup>(1)</sup>			FINAL WASTELOAD ALLOCATIONS		
		(Current Permit Limits)					
		BOD <sub>5</sub> (lb/d)	SUSPENDED SOLIDS (lb/d)	OIL & GREASE (lb/d)	BOD <sub>5</sub> (lb/d)	SUSPENDED SOLIDS (lb/d)	OIL & GREASE (lb/d)
Commonwealth of Va. Rest Area	Pitts Cr.	4.3	4.3	—	4.3	4.3	—
Edgewood Park	Bullbegger Cr.	0.80	0.80	—	0.80	0.80	—
Holly Farms	Sandy Bottom Cr.	167 <sup>(3)</sup>	167 <sup>(3)</sup>	10 mg/l	Stream survey/model and determination of final wasteload allocations planned for the summer of 1980.		
Taylor Packing Company	Messongo Cr.	7006 <sup>(3)</sup>	13010 <sup>(3)</sup>	—	Stream survey/model was run previously. No change in permit anticipated.		
No. Accomack E.S.	Messongo Cr.	1.8	1.4	—	1.8	1.4	—
Messick & Wessels Nelsonia	Muddy Cr.	30mg/l <sup>(4)</sup>	30mg/l <sup>(4)</sup>	—	Interim wasteload allocations may be changed based on BAT guidance.		
Whispering Pines Motel	Deep Cr.	4.8	4.8	—	4.8	4.8	—
Town of Onancock	Onancock Cr.	21	21	—	21	21	—
Messick & Wessels	Onancock Cr.	30mg/l <sup>(4)</sup>	30mg/l <sup>(4)</sup>	—	Interim wasteload allocations may be changed based on guidance.		
So. Accomack E.S.	Pungoteague Cr.	1.8	1.4	—	1.8	1.4	—
A & P Exmore	Nassawadox Cr.	0.38	0.38	—	0.38	0.38	—
Norstrom Coin Laundry	Nassawadox Cr.	60mg/l <sup>(4)</sup> max.	60mg/l <sup>(4)</sup> max.	—	Interim wasteload allocation may be changed based on BAT guidance.		
NH-Acc. Memorial Hospital	Warehouse Cr.	12.5	12.5	—	21.5	12.5	—
Machipongo E.S. & H.H. Jr. High	Trib. To Oresbus Cr.	5.2	5.2	—	5.2	5.2	—
Town of Cape Charles	Cape Charles Harbor	62.6	62.6	—	62.6	62.6	—
America House	Chesapeake Bay	5	5	—	5	5	—
U.S. Coast Guard Chesapeake Bay	Chesapeake Bay	—	—	10/mg/l <sup>(5)</sup>	—	—	10/mg/l <sup>(5)</sup>
U.S. Government Cape Charles AFB	Magothy Bay	Currently No Discharge					
Exmore Foods (Process Water)	Trib. To Parting Cr.	200	100	—	Stream survey/model and determination of final wasteload allocations planned for the summer of 1980.		
Exmore Foods (Sanitary)	Trib. To Parting Cr.	30mg/l <sup>(5)</sup>	30mg/l <sup>(5)</sup>	—	30mg/l <sup>(5)</sup>	30mg/l <sup>(5)</sup>	—
Perdue Foods (process water)	Parker Cr.	May-Oct 275 367 Nov-Apr. 612 797	—	—	Interim Permit in process. Stream survey/models were run. No substantial change in permit anticipated.		
Perdue Foods (parking lot)	Parker Cr.	30mg/l <sup>(5)</sup>	30mg/l <sup>(5)</sup>	—	30mg/l <sup>(5)</sup>	30mg/l <sup>(5)</sup>	—
Accomack Nursing Home	Parker Cr.	2.7	2.6	—	2.7	2.6	—
U.S. Gov't NASA Wallops Island	Mosquito Cr.	75	75	—	75	75	—
U.S. Gov't NASA Wallops Island	Cat Cr.	1.25	1.25	—	1.25	1.25	—
F & G Laundromat	Chincoteague Channel	10	4.8	—	Interim wasteload allocations may be changed based on BAT guidance.		
U.S. Coast Guard	Chincoteague Channel	—	—	15mg/l (max.)	—	—	15mg/l (max.)
Virginia- Carolina Seafood	Chincoteague Bay	342	264	5.5	342	264	5.5
Reginald Stubbs Seafood Co. (VA0005813)	Assateague Channel	—	20	95	—	20	95
Reginald Stubbs Seafood Co. (VA00056421)	Assateague Channel	—	20	98	—	20.4 <sup>(2)</sup>	98
Shreaves	Chincoteague Bay	—	16 <sup>(2)</sup>	1.4 <sup>(2)</sup>	—	16 <sup>(2)</sup>	1.4 <sup>(2)</sup>
Chincoteague Seafood	Chincoteague Bay	342	264	5.5	342	264	5.5

## STATE WATER CONTROL BOARD

- 9 VAC 25-420. James River 3(C) Wastewater Management Plan Peninsula Area (REPEALED).  
 9 VAC 25-430. Roanoke River Basin Water Quality Management Plan (REPEALED).  
 9 VAC 25-440. Upper Roanoke River Subarea Water Quality Management Plan (REPEALED).  
 9 VAC 25-450. Upper James River Basin Water Quality Management Plan (REPEALED).  
 9 VAC 25-452. Upper James-Jackson River Subarea Water Quality Management Plan (REPEALED).  
 9 VAC 25-460. Metropolitan/Regional Water Quality Management Plan for Northern Neck Planning District (No. 17) (REPEALED).  
 9 VAC 25-470. York River Basin Water Quality Management Plan (REPEALED).  
 9 VAC 25-480. Tennessee and Big Sandy River Basins Water Quality Management Plan (REPEALED).  
 9 VAC 25-490. Rappahannock Area Development Commission (RADCO) 208 Areawide Waste Treatment Management Plan and Potomac-Shenandoah River Basin 303(E) Water Quality Management Plan (REPEALED).  
 9 VAC 25-500. State Water Quality Management Plan for the Fifth Planning District (REPEALED).  
 9 VAC 25-510. Water Quality Management Plan for the Southwest Virginia 208 Planning Area (REPEALED).  
 9 VAC 25-520. Water Quality Management Plan for the First Tennessee-Virginia Development District (REPEALED).  
 9 VAC 25-530. Water Quality Management Plan for the Hampton Roads Planning Area (Planning Districts 20 & 21) (REPEALED).  
 9 VAC 25-540. Water Quality Management Plan for the New River Basin (REPEALED).  
 9 VAC 25-550. Small Coastal River Basins and Chesapeake Bay Virginia Eastern Shore Portion Water Quality Management Plan (REPEALED).  
 9 VAC 25-560. Potomac-Shenandoah River Basin Water Quality Management Plan (REPEALED).  
 9 VAC 25-570. Richmond-Crater Interim Water Quality Management Plan (REPEALED).  
 9 VAC 25-572. Water Quality Management Plans (REPEALED).  
 9 VAC 25-720. Water Quality Management Planning Regulation.

Statutory Authority: § 62.1-44.15 of the Code of Virginia and 33 USC § 1313(e) of the Clean Water Act.

Effective Date: April 24, 2003.

Summary:

This regulation sets forth the Total Maximum Daily Loads (TMDLs), stream segment classification, effluent limitations including water quality based effluent limitations, and waste load allocations.

In addition, this regulatory action repeals 18 existing water quality management plans as state regulations. These plans are basinwide or areawide waste treatment or pollution control management plans developed in accordance with §§ 208 and 303(e) of the Clean Water Act (CWA), as implemented by 40 CFR Part 130. These plans serve as repositories for TMDLs, water quality based effluent limits, waste load allocations and the recommended pollution control measures needed to attain or maintain water quality standards. These plans no longer reflect current conditions and need to be updated. There are no federal or state statutory or regulatory requirements for the plans to be regulations, but they continue to be in the Virginia Administrative Code. The repeal of these plans as regulations allows for a more dynamic water quality management plan update process, reduces potential for conflicts between TMDLs, VPDES permits and the existing WQMPs, and eliminates unnecessary and outdated regulations.

The only changes to the regulation since the September 9, 2002, publication are the incorporation of additional text from the existing regulations and a change in the information on the discharge for the Town of Keysville based on a previous board action concerning a consent special order.

CHAPTER 720.  
WATER QUALITY MANAGEMENT PLANNING REGULATION.

9 VAC 25-720-10. Definitions.

The following words and terms when used in this chapter shall have the following meanings unless the context clearly indicates otherwise:

"Assimilative capacity" means the greatest amount of loading that a water can receive without violating water quality standards, significantly degrading waters of existing high quality, or interfering with the beneficial use of state waters.

"Best management practices (BMP)" means a schedule of activities, prohibition of practices, maintenance procedures and other management practices to prevent or reduce the pollution of state waters. BMPs include treatment requirements, operating and maintenance procedures, schedule of activities, prohibition of activities, and other management practices to control plant site runoff, spillage, leaks, sludge or waste disposal, or drainage from raw material storage.

**MEMORANDUM**  
**Department of Environmental Quality**  
**Tidewater Regional Office**

435  
 Jen Could you confirm  
 accuracy of River  
 mile

on Boulevard

Virginia Beach, Virginia 23462

VPDES Application Requests for Rivermile Determination

Mark Bushing  
 Michelle E. Fulks, TRO

Bob Smithson

9/23/04 ← old

lat/long  
 Shank's  
 ✓ JSH 11/4/09

Copies: P&PS Rivermile File, VPDES Facility File

Return Date Due: \_\_\_\_\_

Permit writers please supply the following information and maps for determination of river miles for the outfalls.

- Topo map with facility location and outfall locations clearly marked
- Site diagram for facilities with multiple outfalls
- Description or map showing effluent flow path if not apparent on topo map
- Complete the box below containing the facility information
- Complete the following columns/information in the table below: Topo Name, Outfall #, and Facility Lat/Long needed. Use an additional sheet if more outfall locations are needed
- Requests for STORET information – see Steve Cioccia for forms

Facility Name: Cardinal Village VPDES #: VA0065196

File #: 206 File Code: PPP

Receiving Stream: X trib to Tunnels Mill Br to Bullhopper Cr

Topo Name	Outfall #	Latitude/Longitude	River Mile	Waterbody Name	WBID #
<u>Hallwood</u>	<u>001</u>	<u>37 57 13.7 / 75 32 23.5</u>	<u>OK</u>	<u>OK</u>	
<u>142A</u>			<u>0.32</u>	<u>0.95</u>	<u>C09R</u>
Facility Lat/Long Needed?		<u>37 57 14.7 / 75 32 22.6</u>			
Yes or No					

To be completed by P&PS

Received: \_\_\_\_\_ Completed: \_\_\_\_\_

Map attached: \_\_\_\_\_ File Name: \_\_\_\_\_ GIS entry: \_\_\_\_\_

44 37 21

Analysis of the Edgewood Mobile Home Park effluent data for chlorine  
Averaging period for standard = 4 days

The statistics for chlorine are:

Number of values	=	2
Quantification level	=	100
Number < quantification	=	0
Expected value	=	2400
Variance	=	2073601
C.V.	=	.6
97th percentile	=	5840.203
Statistics used	=	Reasonable potential assumptions - Type 2 data

The WLAs for chlorine are:

Acute WLA	=	19
Chronic WLA	=	11
Human Health WLA	=	----

Limits are based on chronic toxicity and 30 samples/month, 8 samples/week

Maximum daily limit	=	16.08833
Average weekly limit	=	9.596766 or .0095 mg/L round to 0.010
Average monthly limit	=	7.973713 .0079 mg/L round to 0.008

Note: The maximum daily limit applies to industrial dischargers  
The average weekly limit applies to POTWs  
The average monthly limit applies to both.

The Data are

---

Cardinal Village

12-02-1999  
VA0065196

CRITERION FOR Unnamed Trib to Tunnels Mill Branch to Bullbegger Cr. at Edgewood Mobile H

Units = ug/l unless noted as mg/l

PARAMETER	CRITERIA				QL	WLAa	WLAC	WLAh
	Acute	Chronic	HH					
NH3-N, mg/l	14.49	2.49		0.2	14.48848	2.492394		
Ammonia Acute criteria is one hour average conc., Chronic criteria is 30-day average conc.								
Acenaphthene			2700	10				2700
Aldrin	3	.3	.0014	0.05	3	.3		.0014
Anthracene			110000	10				110000
Antimony			4300	10				4300
AS III	360	190		10	360	190		
Benzene			710	10				710
Benzo(a)anthracene			.49	10				.49
Benzo(b)fluoranthene			.49	10				.49
Benzo(k)fluoranthene			.49	10				.49
Benzo(a)pyrene			.49	10				.49
Bromoform			3600	10				3600
Butyl benzyl phthalate			5200	10				5200
Cadmium	3.92	1.13		1	3.922119	1.134259		45
Carbon Tetrachloride			45	10				.0059
Chlordane	2.4000	0.0043	0.0059	0.2	2.4	.0043		
Chloride, mg/l	860	230			860	230		
Chlorine Total Residual	19	11		100	19	11		
Chlorodibromomethane								
Chloroform			57000	10				57000
2 Chlorophenol			4700	10				4700
Chlorpyrifos			400	20				400
CR III	.083	.041		0.2	.083	.041		
CR VI	1736.514	206.983		10	1736.514	206.9825		
Chrysene	16	11		10	16	11		
			.49	10				.49

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PARAMETER	CRITERIA			QL	WLaA	WLAC	WLAh
	Acute	Chronic	HH				
Copper	17.725	11.824	215000	10	17.72527	11.82384	215000
Cyanide	22	5.2	.0084	10	22	5.2	.0084
DDD			.0059	0.1			.0059
DDE			.0059	0.1			.0059
DDT	1.1	.001	.0059	0.1	1.1	.001	.0059
Demeton		.1				.1	
Dibenz(a,h)anthracene			.49	20			.49
Dibutyl phthalate			12000	10			12000
Dichloromethane			16000	20			16000
1,2-Dichlorobenzene			17000	10			17000
1,3-Dichlorobenzene			2600	10			2600
1,4-Dichlorobenzene			2600	10			2600
Dichlorobromomethane			460	10			460
1,2-Dichloroethane			990	10			990
1,1, Dichloroethylene			17000	10			17000
2,4, Dichlorophenol			790	10			790
Dieldrin	2.5	.0019	.0014	0.1	2.5	.0019	.0014
Diethyl phthalate			120000	10			120000
Di-2-EthylhexylPhthalate			59	10			59
2,4, Dimethylphenol			2300	10			2300
2,4-Dinitrotoluene			91	10			91
Endosulfan*	.22	.056	240	0.1	.22	.056	240
Endrin	.18	.0023	.81	0.1	.18	.0023	.81
Ethylbenzene			29000	10			29000
Fluoranthene			370	10			370
Fluorene			14000	10			14000

PARAMETER

CRITERIA

Acute Chronic HH

QL

WLAa

WLAc

WLAh

PARAMETER	Acute	Chronic	HH	QL	WLAa	WLAc	WLAh
Guthion		.01				.01	
Heptachlor	.52	.0038	.0021	0.05	.52	.0038	.0021
Hexachlorocyclohexane	2	.08	25	0.05	2	.08	25
Hydrogen Sulfide		2				2	
Indeno(1,2,3cd)pyrene			.49	20			.49
Isophorone			490000	10			490000
Kepon		0				0	
Lead	118.912	13.509		5	118.9118	13.50935	
Malathion		.1				.1	
Mercury	2.4	.012	.053	0.2	2.4	.012	.053
Methoxychlor		.03		0.2		.03	
Mirex		0				0	
Monchlorobenzene			21000	50			21000
Nickel	182.724	20.327	4600	40	182.7236	20.32748	4600
Nitrobenzene			1900	10			1900
Parathion	.065	.013			.065	.013	
PCB (check isomer**)		.014	.00045	1		.014	.00045
Pentachlorophenol	14.992	9.464	82	50	14.99175	9.464044	82
Phenol			4600000	10			4600000
Pyrene			11000	10			11000
Radionuclides:							
Gross Alpha Particle			15 pCi/l				
Beta Particle and Photon Activity			4 mrem				
Strontium-90			8 pCi/l				
Tritium			20,000 pCi/l				

PARAMETER	CRITERIA				QL	WLAa	WLAC	WLAh
	Acute	Chronic	HH					
Selenium	20	5	11000	5	20	5		11000
Silver	4.059			2	4.058822			
Tetrachloroethylene			3500	10				3500
Toluene			200000	10				200000
Toxaphene	.73	.0002	.0075	5	.73	.0002		.0075
1,2,4, Trichlorobenzene			950	10				950
Trichloroethylene			810	10				810
2,4,6-Trichlorophenol			65	10				65
Tributyltin	.46	.026			NA	.026		
Vinyl Chloride			5300	10				5300
Zinc	117.022	105.992		20	117.0219	105.9917		

Criterion also applicable for D.O., pH, Temp. and Dioxin

All metals shall be measured as dissolved. For Cadmium, Chromium III, Copper, Lead, Nickel, Silver and Zinc, multiply number by water effect ratio (WER), as defined in 9 VAC 25-260-140.F.

Chronic aquatic life criteria applies to methyl mercury. This criteria will protect the marketability of natural resources, e.g. fish and shellfish.

\* Endosulfan I-0.014, Endosulfan II-0.004, Endosulfan Sulfate-0.066

\*\* PCB 1242, 1254, 1221, 1232, 1248, 1260 or 1016 (only 1242 has a detection level)

If background data are available correct the WLA by subtracting the product of background concentration and the appropriate factor (Q7/QE, Q1/QE, Q30/QE, QH/QE, 0, 1 or 49)

If receiving waters are transitional, run fresh and salt and use most stringent

#### INPUT INFORMATION:

fresh water

PWS = n Lake, marsh or swamp = n

90th percentile Temperature = 23.6

Effluent hardness = 100

1Q10 = 0 7Q10 = 0

IWCa = 1

Flow Ratios: Q1/QE= 0

IWCC = 1

Q7/QE= 0

Q30/QE= 0

QH/QE= 0

Receiving stream is Unnamed Trib to Tunnels Mill Branch to Bul

Contaminated stormwater = n

90th percentile pH = 7.5

Stream hardness = 100

30Q5 = 0 Harmonic mean = 0 Effluent flow = .006



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MEMORANDUM  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
TIDEWATER REGIONAL OFFICE

Pembroke Two - Suite 310

Virginia Beach, VA 23462

SUBJECT: Recommended Effluent Limitations for the Edgewood Mobile Home  
Park's STP - Unnamed Tributary to Tunnels Mill Branch, Accomack,  
VA

TO: Permit File via Bob Smithson

FROM: *SMC* Stephen Cioccia via Bob Jackson *R*

DATE: December 5, 1994

COPIES: Modeling File

The subject facility discharges to a dry ditch tributary (a drainage ditch system, which has a 7Q10 of zero) of Tunnels Mill Branch. The receiving stream is basically an intermittent stream/dry ditch system which conveys the discharge via drainage ditches to Tunnels Mill Branch, which is a perennial stream.

The proposed effluent limitations to address oxygen demand are:

cBOD = 10 mg/l

TSS = 10 mg/l

TKN = 3 mg/l

D.O. = 5 mg/l

A Best Engineering Judgement (BEJ) approach is employed to determine appropriate effluent limitations to address oxygen demand. Recent draft OWRM guidance (see Attachment 1) indicates a discharge to a stream with a 7Q10 of zero would require a discharge that is "self sustaining so to comply with water quality standards". The guidance titled "Advisory Notification of Effluent Limits for Swamp and Marsh Waters", March 9, 1987 (see Attachment 2), identifies effluent limits that are "representative of effluents that are self sustaining". We propose use of the 'Swamp and Marsh Waters' effluent limitations with the substitution of a D.O. of 5 mg/l to equal the D.O. standard at the discharge point. This will result in proposed effluent limitations of 10/10/3/5 (cBOD/TSS/TKN/D.O.). This will be in concert with the guidance and consistent with effluent limitations imposed on similar discharges.

There is some question as to whether the proposed effluent limitations will be adequate to maintain the applicable water quality standards specified by the Class III stream classification (instream D.O. of 5 mg/l). However, all available information indicates that limits at least as stringent as 10/10/3/5 are required. We recommend that monitoring of the receiving stream be conducted by DEQ, at a time after the final limitations have become effective, in order to verify that these proposed limitations will maintain standards.

#### 2.4.7 Wasteload Allocations Where The 7Q10 Is Zero Or Minimal

A discharge to a water course with a 7Q10 of zero or near zero would be required to have effluent limits that would comply with water quality standards, at a minimum. The discharge would have to be "self sustaining" so to comply with water quality standards. Therefore, the discharge would be WQL and the receiving water course with a 7Q10 of zero near zero would be considered a tier 1 segment.

A discharge to a tier 1 water that empties into a tier 2 water would have to be evaluated for antidegradation at the point of confluence of the two water courses, if the discharge is in close enough proximity to impact the tier 2 water. In the above scenario, antidegradation requirements to protect tier 2 waters may apply to a discharge to a tier 1 water. Therefore, effluent limits may be more stringent than required by the numerical water quality standards.

If a discharge occurs to a dry ditch or tributary that empties into a free flowing stream and the distance from the discharge to the next confluence is too short to model (based upon the current modelling programs), then the discharge should be modelled as if it occurs directly to the free flowing stream.

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SUBJECT: Advisory Notification of Effluent Limits for Swamp and Marsh Waters

TO: L. G. Lawson

FROM: A. J. Anthony *AJA*

DATE: March 9, 1987

COPIES: M. A. Bellanca, W. L. Woodfin, M. D. Phillips, J. W. Gregory, Regional Directors, file

In the event that a proposal is received for discharge to a swamp or marsh that cannot be modeled and the current standards are being violated for whatever reason, OERS recommends the following effluent limits:

CBOD <sub>5</sub> =	10 mg/l
TSS =	10 mg/l
TKN =	3 mg/l
D.O. =	3 mg/l
Cl <sub>2</sub> =	0.011 mg/l

Our rationale for these recommendations are as follow:

1. We have found over the past years, through application of modeling technology to small streams, that the above limits are representative of effluents that are "self-sustaining"; that is: such an effluent will not normally violate the stream standard even if the stream consists of 100% effluent.

Given the fact that the areas of intended application of our recommendations are such that the stream will not possess good mixing processes and may in fact contain 100% effluent for significant distances and times render it necessary, in our opinion, that discharges be essentially of "self-sustaining" quality.

2. CBOD<sub>5</sub> — We are recommending nitrification and consequently CBOD<sub>5</sub> is what will be measured. In addition, we believe that where both unoxidized nitrogen and hydrocarbons are limited due to considerations of stream dissolved oxygen, it is correct and reasonable to specify them separately to avoid double counting their impacts.

Attachment 2

limit. This is consistent with past and present practice and should not be difficult to attain. 92

4. TKN -- We are recommending that unoxidized nitrogen be removed in the treatment plant. The recommended limit on TKN recognizes that a normal domestic effluent usually contains 2-3 mg/l TKN that is refractory and cannot be removed by biological treatment. For industrial discharges this may vary and may be verified by testing. The intent of our recommendation is to remove all biologically oxidizable nitrogen compounds from the effluent.
5. D.O. -- We are recommending that the dissolved oxygen in the effluent be reasonably consistent with that expected to occur in the receiving stream.
6. Cl<sub>2</sub> -- Mixing can be expected to be extremely poor or non-existent and the stream can be expected to contain 100% effluent for significant distances and times. In order to ensure that the chlorine standard is not violated, the discharge must meet the standard.

It is our belief that the above limits will be adequate to:

1. Protect the beneficial uses of and the aquatic life to be expected in swampy and/or marshy streams.
2. Ensure that the limits will not result in additional degradation to the receiving stream.
3. Provide consistency with the intent and requirements of the law.

It must be pointed out that the above limits are based on the professional opinions of OERS. They are not the result of the application of any predictive technology. The negotiations and trade-offs normally associated with the application of modeling to identify permit limits are simply not practical in this case for the following reasons:

1. There are no models available with which to evaluate various alternatives.
  2. The recommended limits are based on professional opinion and are therefore not subject to negotiation.
  3. The recommended limits are very stringent and essentially leave no room for trade-offs among the parameters.
-

AS IS THE CASE WITH THE GUIDANCE PROVIDED BY OERS, PERMIT WITH THE  
OBTAIN CONCURRENCE OERS PRIOR TO DRAFTING PERMIT WITH THE  
ABOVE LIMITS. IN ADDITION, IF THE PROPOSED DISCHARGER DISAGREES WITH  
THE LIMITS ESTABLISHED, THEN IT IS OUR OPINION THAT AMPLE PRECEDENT  
HAS BEEN ESTABLISHED TO ALLOW THE DISCHARGERS TO MODEL THE SYSTEM OR  
PROVIDE OTHER DOCUMENTATION THAT THE LIMITS AS ESTABLISHED ARE NOT  
CORRECT SUBJECT TO THE REVIEW AND APPROVAL OF THE BOARD. 53

PLEASE NOTE THAT TOXIC REQUIREMENTS ARE NOT COVERED IN THIS MEMO, AND  
SHOULD FOLLOW THE NORMAL ROUTINE FOR TOXICS-RELATED ISSUES.

:swamp

MEMORANDUM

VIRGINIA STATE WATER CONTROL BOARD  
Office of Environmental Research and Standards

Subject: Effluent limits for waters that cannot be modeled.  
To: Regional Directors  
From: A. J. Anthony *AJA*  
Date: November 14, 1986 *W*  
Copies: MAB TMF MDP *JWS*

We receive about 2 to 3 proposals a year for discharges to marshy or swampy streams where modeling technology cannot be applied meaningfully.

Normally, it is found that the existing standards are being violated due to the natural condition of the stream and it is obvious that the standard needs to be modified for this type receiving stream. However, the time constraints associated with permit issuance do not allow this to be accomplished. In addition, manpower restraints and limited data on swamp streams render it unlikely that this problem will be corrected soon.

In the event that a proposal is received for discharge to a swamp or marsh that cannot be modeled and the current standards are being violated for whatever reason, OERS recommends the following effluent limits:

cBOD<sub>5</sub> = 10 mg/l  
TSS = 10 mg/l  
TKN = 3 mg/l  
D.O. = 3 mg/l  
Cl<sub>2</sub> = .011 mg/l

It is our belief that the above limits will be adequate to protect the beneficial uses of and the aquatic life to be expected in such streams.

Before the regions draft a permit with the above limits OERS concurrence should be obtained.

TELEPHONE DOCUMENTATION

SUBJECT : AMMONIA LIMIT CALCULATIONS UNNECESSARY WITH TKN  
SWAMP/MARSH LIMIT

WRITTEN BY: R. E. Smithson DATE: August 18, 1993

TO : Permit Factsheet

DISCUSSION: R. M. Smith and I spoke with Fred Holt on this date concerning the need for ammonia limit calculations when swamp/marsh TKN limits apply. He informed us that a TKN limit of 3 mg/l is stringent enough to protect any receiving stream from ammonia toxicity, hence an NH3 limit would be unnecessary. This applies, as well, when antidegradation is being considered because of tier 2 waters. Ammonia limit calculations using baseline data is not necessary.

CONSIDERATION: Should a draft permit include tiered TKN limits in the summer and ammonia limits in the winter to assist the permittee in meeting denitrification requirements, antidegradation may be a consideration when calculating NH3. If the receiving waters are tier 2, then NH3 baseline data must be utilized.

---

cc: R. M. Smith,

cc: R. P. Goode

ATTACHMENT 9

TABLE III (a) AND TABLE III (b) -  
CHANGE SHEETS



TABLE III (a)

VPDES PERMIT PROGRAM  
Permit Processing Change Sheet

1. Effluent Limits and Monitoring Schedule: (List any changes FROM PREVIOUS PERMIT and give a brief rationale for the changes).

OUTFALL NUMBER	PARAMETER CHANGED	MONITORING LIMITS CHANGED FROM / TO	EFFLUENT LIMITS CHANGED FROM / TO	RATIONALE	DATE & INITIAL

OTHER CHANGES:	RATIONALE:	DATE & INITIAL
Special conditions updated: bacterial effluent limitations and monitoring for alternative disinfection; financial assurance, quantification levels & compliance reporting	Most recent conditions per VPDES Manual	10/19/09 <i>JS</i>
Addition of Preventive Maintenance Plan special condition	Best professional judgment based upon other facilities of similar nature	10/19/09 <i>JS</i>

TABLE III (b)

VPDES PERMIT PROGRAM  
Permit Processing Change Sheet

1. Effluent Limits and Monitoring Schedule: (List any changes MADE DURING PERMIT PROCESS and give a brief rationale for the changes).

[illegible]

ATTACHMENT 10

EPA PERMIT CHECKLIST

**State "Transmittal Checklist" to Assist in Targeting  
Municipal and Industrial Individual NPDES Draft Permits for Review**

**Part I. State Draft Permit Submission Checklist**

**State "Transmittal Checklist" to Assist in Targeting  
Municipal and Industrial Individual NPDES Draft Permits for Review**

**Part I. State Draft Permit Submission Checklist**

In accordance with the MOA established between the Commonwealth of Virginia and the United States Environmental Protection Agency, Region III, the Commonwealth submits the following draft National Pollutant Discharge Elimination System (NPDES) permit for Agency review and concurrence.

Facility Name: Cardinal Village

NPDES Permit Number: VA0065196

Permit Writer Name: R. E. Smithson

Date: 10/19/09

Major ☐                      Minor ☒                      Industrial ☐                      Municipal ☒

**I.A. Draft Permit Package Submittal Includes:**

	Yes	No	N/A
1. Permit Application?	X		
2. Complete Draft Permit (for renewal or first time permit – entire permit, including boilerplate information)?	X		
3. Copy of Public Notice?		X	
4. Complete Fact Sheet?	X		
5. A Priority Pollutant Screening to determine parameters of concern?			X
6. A Reasonable Potential analysis showing calculated WQBELs?	X		
7. Dissolved Oxygen calculations?		X	
8. Whole Effluent Toxicity Test summary and analysis?			X
9. Permit Rating Sheet for new or modified industrial facilities?			X

**I.B. Permit/Facility Characteristics**

	Yes	No	N/A
1. Is this a new, or currently unpermitted facility?		X	

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2. Are all permissible outfalls (including combined sewer overflow points, non-process water and storm water) from the facility properly identified and authorized in the permit?	X		
3. Does the fact sheet <b>or</b> permit contain a description of the wastewater treatment process?	X		
I.B. Permit/Facility Characteristics - cont.	Yes	No	N/A
4. Does the review of PCS/DMR data for at least the last 3 years indicate significant non-compliance with the existing permit?		X	
5. Has there been any change in streamflow characteristics since the last permit was developed?		X	
6. Does the permit allow the discharge of new or increased loadings of any pollutants?		X	
7. Does the fact sheet <b>or</b> permit provide a description of the receiving water body(s) to which the facility discharges, including information on low/critical flow conditions and designated/existing uses?	X		
8. Does the facility discharge to a 303(d) listed water?		X	
a. Has a TMDL been developed and approved by EPA for the impaired water?		X	
b. Does the record indicate that the TMDL development is on the State priority list and will most likely be developed within the life of the permit?		X	
c. Does the facility discharge a pollutant of concern identified in the TMDL or 303(d) listed water?			X
9. Have any limits been removed, or are any limits less stringent, than those in the current permit?		X	
10. Does the permit authorize discharges of storm water?		X	
11. Has the facility substantially enlarged or altered its operation or substantially increased its flow or production?		X	
12. Are there any production-based, technology-based effluent limits in the permit?		X	
13. Do any water quality-based effluent limit calculations differ from the State's standard policies or procedures?		X	
14. Are any WQBELs based on an interpretation of narrative criteria?			X
15. Does the permit incorporate any variances or other exceptions to the State's standards or regulations?		X	
16. Does the permit contain a compliance schedule for any limit or <b>condition</b> ?		X	
17. Is there a potential impact to endangered/threatened species or their habitat by the facility's discharge(s)?		X	
18. Have impacts from the discharge(s) at downstream potable water supplies been evaluated?			X
19. Is there any indication that there is significant public interest in the permit action proposed for this facility?		X	
20. Have previous permit, application, and fact sheet been examined?	X		

## Part II. NPDES Draft Permit Checklist

### Region III NPDES Permit Quality Checklist – for POTWs

(To be completed and included in the record for POTWs and other municipals)

#### II.A. Permit Cover Page/Administration

	Yes	No	N/A
1. Does the fact sheet or permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?	X		
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?	X		

#### II.B. Effluent Limits - General Elements

	Yes	No	N/A
1. Does the fact sheet describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?	X		
2. Does the fact sheet discuss whether "antibacksliding" provisions were met for any limits that are less stringent than those in the previous NPDES permit?	X		

#### II.C. Technology-Based Effluent Limits (POTWs)

	Yes	No	N/A
1. Does the permit contain numeric limits for ALL of the following: BOD (or alternative, e.g., CBOD, COD, TOC), TSS, and pH?	X		
2. Does the permit require at least 85% removal for BOD (or BOD alternative) and TSS (or 65% for equivalent to secondary) consistent with 40 CFR Part 133?	X		
a. If no, does the record indicate that application of WQBELs, or some other means, results in more stringent requirements than 85% removal or that an exception consistent with 40 CFR 133.103 has been approved?			X
3. Are technology-based permit limits expressed in the appropriate units of measure (e.g., concentration, mass, SU)?	X		
4. Are permit limits for BOD and TSS expressed in terms of both long term (e.g., average monthly) and short term (e.g., average weekly) limits?	X		
5. Are any concentration limitations in the permit less stringent than the secondary treatment requirements (30 mg/l BOD5 and TSS for a 30-day average and 45 mg/l BOD5 and TSS for a 7-day average)?		X	
a. If yes, does the record provide a justification (e.g., waste stabilization pond, trickling filter, etc.) for the alternate limitations?			X

II.D. Water Quality-Based Effluent Limits

	Yes	No	N/A
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering State narrative and numeric criteria for water quality?	X		
2. Does the fact sheet indicate that any WQBELs were derived from a completed and EPA approved TMDL?			X
<b>II.D. Water Quality-Based Effluent Limits – cont.</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
3. Does the fact sheet provide effluent characteristics for each outfall?	X		
4. Does the fact sheet document that a “reasonable potential” evaluation was performed?	X		
a. If yes, does the fact sheet indicate that the “reasonable potential” evaluation was performed in accordance with the State’s approved procedures?	X		
b. Does the fact sheet describe the basis for allowing or disallowing in-stream dilution or a mixing zone?			X
c. Does the fact sheet present WLA calculation procedures for all pollutants that were found to have “reasonable potential”?	X		
d. Does the fact sheet indicate that the “reasonable potential” and WLA calculations accounted for contributions from upstream sources (i.e., do calculations include ambient/background concentrations)?			X
e. Does the permit contain numeric effluent limits for all pollutants for which “reasonable potential” was determined?	X		
5. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the fact sheet?	X		
6. For all final WQBELs, are BOTH long-term AND short-term effluent limits established?	X		
7. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)?	X		
8. Does the record indicate that an “antidegradation” review was performed in accordance with the State’s approved antidegradation policy?	X		

II.E. Monitoring and Reporting Requirements

	Yes	No	N/A
1. Does the permit require at least annual monitoring for all limited parameters and other monitoring as required by State and Federal regulations?	X		
a. If no, does the fact sheet indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate this waiver?			
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?	X		
3. Does the permit require at least annual influent monitoring for BOD (or BOD alternative) and TSS to assess compliance with applicable percent removal requirements?		X	
4. Does the permit require testing for Whole Effluent Toxicity?			X

II.F. Special Conditions

	Yes	No	N/A
1. Does the permit include appropriate biosolids use/disposal requirements?	X		
2. Does the permit include appropriate storm water program requirements?			X

II.F. Special Conditions – cont.

	Yes	No	N/A
3. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?			X
4. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?	X		
5. Does the permit allow/authorize discharge of sanitary sewage from points other than the POTW outfall(s) or CSO outfalls [i.e., Sanitary Sewer Overflows (SSOs) or treatment plant bypasses]?		X	
6. Does the permit authorize discharges from Combined Sewer Overflows (CSOs)?		X	
a. Does the permit require implementation of the “Nine Minimum Controls”?			X
b. Does the permit require development and implementation of a “Long Term Control Plan”?			X
c. Does the permit require monitoring and reporting for CSO events?			X
7. Does the permit include appropriate Pretreatment Program requirements?			X

II.G. Standard Conditions

II.G. Standard Conditions		Yes	No	N/A
1. Does the permit contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?		X		
List of Standard Conditions – 40 CFR 122.41				
Duty to comply	Property rights	Reporting Requirements		
Duty to reapply	Duty to provide information	Planned change		
Need to halt or reduce activity	Inspections and entry	Anticipated noncompliance		
not a defense	Monitoring and records	Transfers		
Duty to mitigate	Signatory requirement	Monitoring reports		
Proper O & M	Bypass	Compliance schedules		
Permit actions	Upset	24-Hour reporting		
		Other non-compliance		
2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for POTWs regarding notification of new introduction of pollutants and new industrial users [40 CFR 122.42(b)]?		X		



## Part II. NPDES Draft Permit Checklist

### Region III NPDES Permit Quality Review Checklist – For Non-Municipals

(To be completed and included in the record for all non-POTWs)

**not applicable**

#### II.A. Permit Cover Page/Administration

	Yes	No	N/A
1. Does the fact sheet or permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?			
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?			

#### II.B. Effluent Limits - General Elements

	Yes	No	N/A
1. Does the fact sheet describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?			
2. Does the fact sheet discuss whether "antibacksliding" provisions were met for any limits that are less stringent than those in the previous NPDES permit?			

#### II.C. Technology-Based Effluent Limits (Effluent Guidelines & BPJ)

	Yes	No	N/A
1. Is the facility subject to a national effluent limitations guideline (ELG)?			
a. If yes, does the record adequately document the categorization process, including an evaluation of whether the facility is a new source or an existing source?			
b. If no, does the record indicate that a technology-based analysis based on Best Professional Judgement (BPJ) was used for all pollutants of concern discharged at treatable concentrations?			
2. For all limits developed based on BPJ, does the record indicate that the limits are consistent with the criteria established at 40 CFR 125.3(d)?			
3. Does the fact sheet adequately document the calculations used to develop both ELG and /or BPJ technology-based effluent limits?			
4. For all limits that are based on production or flow, does the record indicate that the calculations are based on a "reasonable measure of ACTUAL production" for the facility (not design)?			
5. Does the permit contain "tiered" limits that reflect projected increases in production or flow?			
a. If yes, does the permit require the facility to notify the permitting authority when alternate levels of production or flow are attained?			
6. Are technology-based permit limits expressed in appropriate units of measure (e.g., concentration, mass, SU)?			

**not applicable****II.C. Technology-Based Effluent Limits (Effluent Guidelines & BPJ) – cont.**

	Yes	No	N/A
7. Are all technology-based limits expressed in terms of both maximum daily, weekly average, and/or monthly average limits?			
8. Are any final limits less stringent than required by applicable effluent limitations guidelines or BPJ?			

II.D. Water Quality-Based Effluent Limits

	Yes	No	N/A
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering State narrative and numeric criteria for water quality?			
2. Does the record indicate that any WQBELs were derived from a completed and EPA approved TMDL?			
3. Does the fact sheet provide effluent characteristics for each outfall?			
4. Does the fact sheet document that a “reasonable potential” evaluation was performed?			
a. If yes, does the fact sheet indicate that the “reasonable potential” evaluation was performed in accordance with the State’s approved procedures?			
b. Does the fact sheet describe the basis for allowing or disallowing in-stream dilution or a mixing zone?			
c. Does the fact sheet present WLA calculation procedures for all pollutants that were found to have “reasonable potential”?			
d. Does the fact sheet indicate that the “reasonable potential” and WLA calculations accounted for contributions from upstream sources (i.e., do calculations include ambient/background concentrations where data are available)?			
e. Does the permit contain numeric effluent limits for all pollutants for which “reasonable potential” was determined?			
5. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the fact sheet?			
6. For all final WQBELs, are BOTH long-term (e.g., average monthly) AND short-term (e.g., maximum daily, weekly average, instantaneous) effluent limits established?			
7. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)?			
8. Does the fact sheet indicate that an “antidegradation” review was performed in accordance with the State’s approved antidegradation policy?			

**not applicable**

II.E. Monitoring and Reporting Requirements

	Yes	No	N/A
1. Does the permit require at least annual monitoring for all limited parameters?			
a. If no, does the fact sheet indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate this waiver?			
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?			
3. Does the permit require testing for Whole Effluent Toxicity in accordance with the State's standard practices?			

II.F. Special Conditions

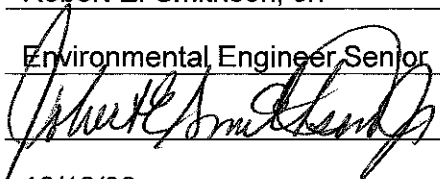
	Yes	No	N/A
1. Does the permit require development and implementation of a Best Management Practices (BMP) plan or site-specific BMPs?			
a. If yes, does the permit adequately incorporate and require compliance with the BMPs?			
2. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?			
3. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?			

II.G. Standard Conditions

	Yes	No	N/A																																
1. Does the permit contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?																																			
<b>List of Standard Conditions – 40 CFR 122.41</b>																																			
<table border="0"> <tr> <td>Duty to comply</td><td>Property rights</td><td>Reporting Requirements</td><td></td></tr> <tr> <td>Duty to reapply</td><td>Duty to provide information</td><td>Planned change</td><td></td></tr> <tr> <td>Need to halt or reduce activity</td><td>Inspections and entry</td><td>Anticipated noncompliance</td><td></td></tr> <tr> <td>not a defense</td><td>Monitoring and records</td><td>Transfers</td><td></td></tr> <tr> <td>Duty to mitigate</td><td>Signatory requirement</td><td>Monitoring reports</td><td></td></tr> <tr> <td>Proper O &amp; M</td><td>Bypass</td><td>Compliance schedules</td><td></td></tr> <tr> <td>Permit actions</td><td>Upset</td><td>24-Hour reporting</td><td></td></tr> <tr> <td></td><td></td><td>Other non-compliance</td><td></td></tr> </table>				Duty to comply	Property rights	Reporting Requirements		Duty to reapply	Duty to provide information	Planned change		Need to halt or reduce activity	Inspections and entry	Anticipated noncompliance		not a defense	Monitoring and records	Transfers		Duty to mitigate	Signatory requirement	Monitoring reports		Proper O & M	Bypass	Compliance schedules		Permit actions	Upset	24-Hour reporting				Other non-compliance	
Duty to comply	Property rights	Reporting Requirements																																	
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Proper O & M	Bypass	Compliance schedules																																	
Permit actions	Upset	24-Hour reporting																																	
		Other non-compliance																																	
2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for existing non-municipal dischargers regarding pollutant notification levels [40 CFR 122.42(a)]?																																			

Part III. Signature Page

Based on a review of the data and other information submitted by the permit applicant, and the draft permit and other administrative records generated by the Department/Division and/or made available to the Department/Division, the information provided on this checklist is accurate and complete, to the best of my knowledge.

Name	Robert E. Smithson, Jr.
Title	Environmental Engineer Senior
Signature	
Date	10/19/09

ATTACHMENT 11  
CHRONOLOGY SHEET

## VPDES PERMIT PROGRAM

## CHRONOLOGY OF EVENTS

APPLICATION RECEIVED	APPLICATION RETURNED	ADDITIONAL INFO REQUESTED	APPLICATION/ADD INFO DUE BACK IN RO	APPLICATION/ADD. INFO RECEIVED
Rec.: 09/03/09	09/09/09	09/09/09	10/03/09	09/21/09
APPLICATION TO VDH: 09/11/09 VDH COMMENTS RECEIVED: 09/22/09				
APPLICATION TO OWPS: N/A OWPS COMMENTS RECEIVED: N/A				
APPLICATION ADMIN. COMPLETE: 09/22/09 APPLICATION TECH. COMPLETE: 10/02/09 planning info				
DATE FORWARDED TO ADMIN:				

Date DESCRIPTIVE STATEMENT [CHRONOLOGY OF EVENTS] (Meetings, telephone calls, letters, memos, hearings, etc. affecting permit from application to issuance)

09/03/09	Application received
09/09/09	Application returned for corrections and financial assurance information (closure plan)
09/11/09	Application electronically forwarded to VDH, DSS, VMRC
09/14/09	Tier determination/planning information requested
09/21/09	Revised application received : Financial assurance information/closure plan, minor application corrections
10/02/09	tier determination information received; applic technically complete
10/15/09	Application complete letter sent to owner
10/19/09	Draft permit/fact sheet finalized
10/19/09	e-mail sent to Financial Assurance (OWPPS) concerning approved closure plan
10/20/09	Virginia Butler (OWPD) says their documents are up to date
10/21/09	Sent to TA for comments
10/29/09	Received comments, corrections made & sent to manager
11/10/09	Draft permit sent to owner
11/20/09	Owner concurrence - sent authorization
12/7/09	PN to newspaper
12/9/09	Date of 1st PN

ATTACHMENT 12  
CORRESPONDENCE

# MEMORANDUM

## DEPARTMENT OF ENVIRONMENTAL QUALITY TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard

Virginia Beach, VA 63462

SUBJECT: PLANNING STATEMENT COMMENTS FOR VPDES PERMIT NO. VA0061596

FACILITY: Cardinal Village Mobile Home Park

ACTION: REISSANCE

FACTYPE: MUNICIPAL

TO: PLANNING

FROM: Smithson / Water Permits

DATE: November 10, 2009

DRAFTED BY: RES

COPIES: TRO File

Please review the subject VPDES Permit package [Application/Fact Sheet/Part I] within 14 days from the date of the memo for conformance with the applicable Board adopted plans and indicate one of the following:

☐ This facility is NOT MENTIONED in an existing Board adopted water quality management planning document applicable to the \_\_\_\_\_

\_\_\_\_\_

This facility will be included in the \_\_\_\_\_

When the plan is updated. \_\_\_\_\_

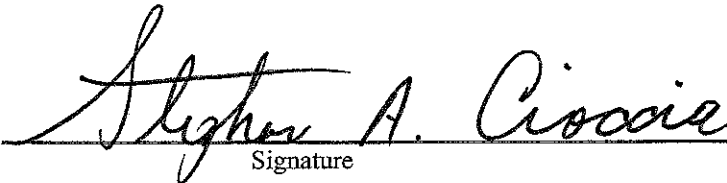
☒ This facility IS MENTIONED in the existing Board adopted water quality management planning documents for the Small Coastal and Chesapeake Bay


\_\_\_\_\_

The facility APPEARS TO CONFORM with the plans. \_\_\_\_\_

☐ This facility IS NOT IN CONFORMANCE with the existing Board adopted water quality management planning documents applicable to the \_\_\_\_\_

COMMENTS:

  
Signature

  
Date





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# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard, Virginia Beach, Virginia 23462

(757) 518-2000 Fax (757) 518-2103

[www.deq.virginia.gov](http://www.deq.virginia.gov)

L. Preston Bryant, Jr.  
Secretary of Natural Resources

David K. Paylor  
Director

Francis L. Daniel  
Regional Director

October 15, 2009

Mr. Upshur Taylor, owner  
Cardinal Village WWTP  
5021 Holland Road  
New Church, VA 23415

RE: VPDES Permit Reissuance VA0065196  
Cardinal Village Wastewater Treatment Plant  
New Church, VA

Dear Mr. Taylor:

Your revised application received September 21, 2009 has been reviewed and it appears to be complete. Other reviews of the application will be required by state agencies to ensure that public health and the environment will be protected.

The next steps involve assembling the information necessary to develop the permit limitations and then drafting the permit. Once the draft permit is prepared and the appropriate reviews are performed, I will transmit the draft permit and supporting documentation to you for review.

Thank you for your cooperation in submitting the completed application. If you have any questions about our procedures or the status of your draft permit, please feel free to call me at (757) 518-2106.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert E. Smithson".

Robert E. Smithson  
Environmental Engineer Senior

cc: DEQ PPP File #206



# COMMONWEALTH of VIRGINIA

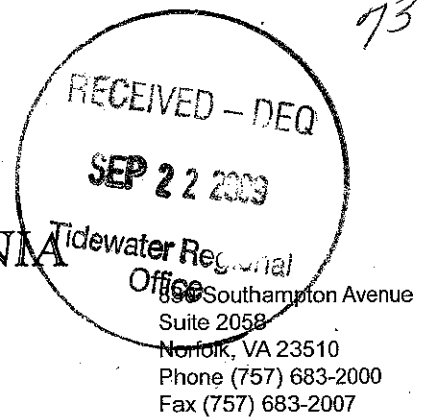
DEPARTMENT OF HEALTH

## OFFICE OF DRINKING WATER

Southeast Virginia Field Office

KAREN REMLEY, MD., M.B.A., F.A.A.P.  
STATE HEALTH COMMISSIONER

J.WESLEY KLEENE, Ph. D., P.E.  
DIRECTOR, Office of Drinking Water



### MEMORANDUM

TO: Robert E. Smithson, Jr.  
Environmental Engineer Senior  
Department of Environmental Quality – Tidewater Regional Office

DATE: SEP 21 2009

FROM: Daniel B. Horne, P.E.  
Engineering Field Director

DBH

CITY/COUNTY: Accomack

PROJECT TYPE: ☐ New ☒ Renewal or Revision

☒ VPDES ☐ VPA ☐ VWPP ☒ JPA ☐ Other: \_\_\_\_\_

☒ Number: VA 0065196

OWNER/APPLICANT: Upshur J. Taylor

PROJECT: Cardinal Village

- ☒ There are no public water supply raw water intakes located within 15 miles downstream or within one tidal cycle upstream of the existing project.
- ☐ The raw water intake for the \_\_\_\_\_ waterworks is located \_\_\_\_\_ miles [downstream/upstream] of the discharge. This should be a sufficient distance to minimize the impacts of the discharge. We recommend a minimum Reliability Class of \_\_\_\_\_ for this facility.
- ☐ The raw water intake for the \_\_\_\_\_ waterworks is located \_\_\_\_\_ miles [downstream/upstream (within one tidal cycle)] of the discharge.
- ☐ Please forward a copy of the Draft Permit for our review and comment.
- ☐ Comments:

Prepared by: D. Gary W. Tucker  
Dixon W. Tucker, P.E.  
District Engineer

pc: V.D.H. - Office of Drinking Water, Field Services Engineer

R:\DIST22\Accomack\DEQ Permits\2009\Cardinal Village.doc



PPP 206  
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# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard, Virginia Beach, Virginia 23462

(757) 518-2000 Fax (757) 518-2103

[www.deq.virginia.gov](http://www.deq.virginia.gov)

L. Preston Bryant, Jr.  
Secretary of Natural Resources

David K. Paylor  
Director

Francis L. Daniel  
Regional Director

September 11, 2009

D. B. Horne, P.E.  
Engineering Field Director  
Virginia Department of Health  
Office of Drinking Water  
830 Southampton Ave., Room 2058  
Norfolk, VA 23510

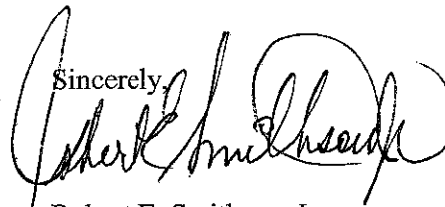
RE: Reissuance of VPDES Permit No. VA0065196  
Cardinal Village Wastewater Treatment Plant  
New Church, VA

Dear Dan:

Enclosed is a copy of the referenced VPDES permit application for your review and concurrence. A copy of this application is also being provided to the Division of Shellfish Sanitation in Richmond and VMRC in Newport News for their review and comment.

Please submit a letter to this office within 14 days with your comments or objections or a statement verifying that the Virginia Department of Health, Office of Drinking Water, has no comments on the application. You may contact me at 757-518-2106 or email at [robert.smithsonjr@deq.virginia.gov](mailto:robert.smithsonjr@deq.virginia.gov) if you have any questions.

Sincerely,



Robert E. Smithson, Jr.  
Environmental Engineer Senior

cc: DEQ - TRO/PPP file # 206

Enclosure: Permit Application



# COMMONWEALTH of VIRGINIA

## Department of Health DIVISION OF SHELLFISH SANITATION

109 Governor Street, Room 614-B  
Richmond, VA 23219

Ph: 804-864-7487  
Fax: 804-864-7481

### MEMORANDUM

DATE: 9/21/2009

TO: Robert E. Smithson, Jr.  
Department of Environmental Quality

FROM: Robert E. Croonenberghs, Ph.D., Director  
Division of Shellfish Sanitation

SUBJECT: Cardinal Village Wastewater Treatment Plant

City / County: Accomack

Waterbody: Tunnels Mill Branch / Bulbegg Creek

Type: ☒ VPDES ☐ VMRC ☐ VPA ☐ WWP ☐ JPA ☐ Other:

Application / Permit Number: VA0065196

- ☐ The project will not affect shellfish growing waters.
- ☐ The project is located in approved shellfish growing waters, however, the activity as described will not require a change in classification.
- ☒ The project is located in condemned shellfish growing waters and the activity, as described, will not cause an increase in the size or type of the existing closure.
- ☐ The project will affect condemned shellfish waters and will not cause an increase in the size of the total condemnation. However, a prohibited area (an area from which shellfish relay to approved waters for self-purification is not allowed) will be required within a portion of the currently condemned area. See comments.
- ☐ A buffer zone (including a prohibited area) has been previously established in the vicinity of this discharge, however, the closure will have to be revised. Map attached.
- ☐ This project will affect approved shellfish waters. If this discharge is approved, a buffer zone (including a prohibited area) will be established in the vicinity of the discharge. Map attached.
- ☐ Other.

ADDITIONAL  
COMMENTS:

Area #: 75



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard, Virginia Beach, Virginia 23462

(757) 518-2000 Fax (757) 518-2103

[www.deq.virginia.gov](http://www.deq.virginia.gov)

September 11, 2009

L. Preston Bryant, Jr.  
Secretary of Natural Resources

David K. Paylor  
Director

Francis L. Daniel  
Regional Director

Division of Shellfish Sanitation  
Virginia Department of Health  
109 Governor Street, Room 614B  
Richmond, VA 23219

RE: Reissuance of VPDES Permit No. VA0065196  
Cardinal Village Wastewater Treatment Plant  
New Church, VA

Dear Sir or Madam:

Enclosed is a copy of a VPDES permit application for your review. A copy has also been sent to the VDH Office of Drinking Water and the Virginia Marine Resources Commission. Please review this application and provide your comments within 14 calendar days to DEQ identifying the location of any shellfish growing areas that would have to be condemned pursuant to Va. Code § 28.2-807 (i.e., reclassified as restricted or prohibited as defined by the National Shellfish Sanitation Program) as a result of the proposed discharge of pollutants described in the application. Alternatively, you may respond to DEQ within 14 calendar days of receipt of the application that DSS intends to conduct a further evaluation of the proposed discharge site. If DSS intends to conduct a further evaluation, please provide your comments to DEQ within 30 calendar days after receipt of the application. In the event that DSS anticipates that, due to the complexity of a proposal or the scope of an evaluation, it will not be able to make a determination within 30 calendar days after receipt of the application, please, within 14 days of receipt, inform DEQ of the anticipated time required to further evaluate the application. These deadlines are specified in the agreement between the Director of DEQ and the Commissioner of the Virginia Department of Health to ensure that DEQ can process the permit in a timely manner.

Please also provide a copy of any correspondence relative to this application to the Virginia Marine Resources Commission at the following address:

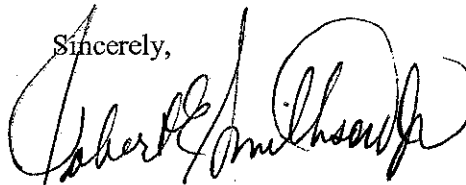
Virginia Marine Resources Commission  
2600 Washington Avenue, 3<sup>rd</sup> Floor  
Newport News, VA 23607

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Reissuance of VPDES Permit No. VA006519  
Cardinal Village Wastewater Treatment Plant  
New Church, VA  
Page Two

If you have any questions, please do not hesitate to contact me by telephone at (757) 518-2106 or by e-mail at [robert.smithsonjr@deq.virginia.gov](mailto:robert.smithsonjr@deq.virginia.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Robert E. Smithson, Jr.", written over a horizontal line.

Robert E. Smithson, Jr.  
Environmental Engineer Senior

Enclosure: VPDES Permit Application  
cc: TRO PPP File # 206



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard, Virginia Beach, Virginia 23462

(757) 518-2000 Fax (757) 518-2103

[www.deq.virginia.gov](http://www.deq.virginia.gov)

September 11, 2009

L. Preston Bryant, Jr.  
Secretary of Natural Resources

David K. Paylor  
Director

Francis L. Daniel  
Regional Director

Virginia Marine Resources Commission  
2600 Washington Avenue, 3rd Floor  
Newport News, VA 23607

RE: Reissuance of VPDES Permit No. VA0065196  
Cardinal Village Wastewater Treatment Plant  
New Church, VA

Dear Sir or Madam:

Enclosed for your review is a copy of a VPDES permit application for a proposed discharge of pollutants from a point source to state waters adjacent to, or in near proximity to, shellfish growing areas. A copy of this application has also been sent to the Virginia Department of Health's Division of Shellfish Sanitation (DSS), and VDH's Office of Drinking Water. Further, DSS has been requested to copy VMRC on correspondence relative to this application.

Please review the application and DSS correspondence. If DSS notifies you that no condemnation of shellfish growing areas would be necessary as a result of the proposed discharge, then VMRC is not required to take any further action.

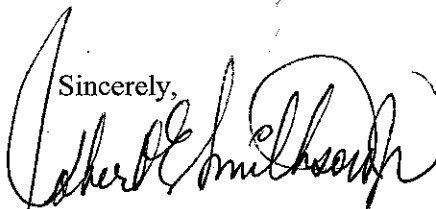
If DSS indicates in its correspondence that shellfish growing areas will have to be condemned (i.e., reclassified as restricted or prohibited as defined by the National Shellfish Sanitation Program) as a result of the proposed discharge, please fill out the attached certification form and send it to DEQ within 21 days of receipt of the DSS comments.

Alternatively, VMRC may respond to DEQ that more information is needed and that VMRC either intends to or does not intend to perform a field evaluation. If VMRC notifies DEQ that more information is needed and that it intends to perform a field evaluation, VMRC agrees to certify to DEQ within 30 calendar days after receipt of the notice that the condemnation will or will not have an effect on shellfish use now and in the foreseeable future. If VMRC certifies to DEQ that more information is needed and that it does not intend to perform a field evaluation, DEQ will contact the permit applicant to allow the applicant the option of obtaining a field evaluation of the areas proposed for condemnation. If VMRC receives a field evaluation from the applicant, please review the evaluation and fill out the attached certification form and send it to DEQ within 21 days of receipt of the evaluation.

Reissuance of VPDES Permit No. VA0065196  
Cardinal Village Wastewater Treatment Plant  
New Church, VA  
Page Two

These deadlines are specified in an agreement between the Director of DEQ and the Commissioner of VMRC to ensure that DEQ can process the permit in a timely manner. If you have any questions, please do not hesitate to contact me by telephone at (757) 518 - 2106 or by e-mail at [robert.smithsonjr@deq.virginia.gov](mailto:robert.smithsonjr@deq.virginia.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Robert E. Smithson, Jr.", written over a horizontal line.

Robert E. Smithson, Jr.

Environmental Engineer Senior

Enclosure: VPDES Permit Application, Certification Form  
cc: DSS, TRO PPP File # 206



Virginia Marine Resources Commission  
Evaluation and Certification on the Effects of Proposed Shellfish Condemnation  
VPDES Permit Number: VA0065196  
Facility Name: Cardinal Village Wastewater Treatment Plant  
Facility Location: New Church, VA  
Description of the designated area:

Presence or Absence of Shellfish; Identification of Species; Results of Survey:

Commercial Harvest Rates:

Private Oyster Ground Leases/Public Ground Designations:

Physical Parameters:

In accordance with 9 VAC 25-260-270, MRC has reviewed the above information for the VPDES application referenced above, and DSS information on shellfish growing areas that will be condemned (i.e. reclassified as restricted or prohibited as defined by the National Shellfish Sanitation Program) if the VPDES permit is issued for this discharge, and concludes the proposed condemnation will have the following effects on the shellfish use now and in the foreseeable future:

Signed: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

This certification is intended to provide factual information to DEQ required by 9 VAC 25-260-270. This is not a final determination or case decision under the Virginia Administrative Process Act applicable to the above-mentioned facility or VPDES permit application. The final decision to issue or deny the VPDES permit application is within the discretion of the State Water Control Board.

**Smithson,Robert**

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**From:** Smithson,Robert**Sent:** Friday, September 11, 2009 3:27 PM**To:** Horne, Daniel (VDH); Howell, Beth (MRC); Stagg, Ben (MRC); Skiles, Keith (VDH)**Subject:** Permit Application for Review-Permit No. VA0065196, Cardinal Village, New Church, VA

<ftp://ftp.deq.virginia.gov/wps/PERMIT/TRO/VDH.%20DSS.%20VMRC%20For%20Review/VA0065196%20Cardinal%20Village/>  
Attached is a link to the FTP site to access a permit application for your review. Under the folder for the facility listed above on the FTP site, there is a letter for each Agency and the permit application. Please pull the information that you need off the FTP site (available for 30 days).

9/11/2009

Smithson,Robert

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**From:** Smithson,Robert  
**Sent:** Wednesday, September 09, 2009 4:27 PM  
**To:** 'speck@intercom.net'  
**Subject:** Cardinal Village VPDES Application for Reissuance

Dear Mr. Taylor:

I have reviewed the referenced package received September 3, 2009. Please note the following areas where additional information is needed or corrections should be made. Let me know if you would like for me to return the applicable original application pages if you don't have a copy to make the corrections on:

Form 2A Application Overview

**Financial Assurance Documentation did not accompany the application: an up-to-date onsite closure plan with the latest inflation adjusted closure cost estimate must be (re)submitted, as last time**

**page 2 of 21#A.4 note that SCC requirements/registration is applicable at the threshold of 50 residences and we will need documentation to/ from SCC**

Sewage Sludge Application Form

**Page 1, item 3.a. The answer would be "no", the facility does not treat the sludge to meet Class A pathogen reduction.**

**Page 2, item 3.b. This section was not filled out**

9/9/2009

## B. Municipal Permit Application Forms

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### 1. Privately Owned Treatment Works (PVOTW) Requirements

Article 2, §62.1-44.15:3 of the State Water Control Law states the following in regards to PVOTWs:

"No application for a certificate to discharge sewage into or adjacent to state waters from a privately owned wastewater treatment system serving fifty or more residences shall be considered complete unless the applicant has provided the Executive Director with notification from the State Corporation Commission that the applicant is incorporated in the Commonwealth and is in compliance with all regulations and relevant orders of the State Corporation Commission."

All PVOTWs serving or designed to serve 50 or more residences must be registered with the State Corporation Commission (SCC) when applying for a permit issuance or reissuance. Verification can be accomplished by having the applicant provide a copy of the SCC Certificate of Incorporation (for Virginia based operations), evidence of status as a Limited Liability Company (LLC) with the SCC or the Certificate of Authority (for operations based out of state or out of the country) with the application. PVOTWs expanding to serve 50 or more residences who apply for modification of an existing permit are also required to provide this notice. Applications from these facilities cannot be deemed complete unless their registration is verified.

Applications for Federal facilities are not required to provide this certification even though they are considered PVOTWs and may fit the "serving 50 residences" criteria.

### 2. Financial Assurance/Closure Requirements

The Financial Assurance Regulation, 9 VAC 25-650-10 et seq., applies to all privately owned sewerage systems that treat sewage generated by private residences and discharge more than 1,000 gpd and less than 40,000 gpd. A private residence is defined by this regulation as "any building, buildings or part of a building owned by a private entity which serves as a permanent residence where sewage is generated. Private residences include, but are not limited to, single family homes, duplexes, condominiums, mobile homes, and apartments. Private residences do not include hotels, motels, seasonal camps, and industrial facilities that do not also serve as residences." Therefore, the financial assurance requirements apply to any privately owned treatment works within the stated flow regime where interruption of sewer service would mean that residents served by the facility could no longer occupy their permanent homes.

If the treatment works was permitted prior to January 1, 2001 and has a **permitted** flow of less than 5,000 gallons per day and was not in violation of their permit or the Law for the past 5 years, they may seek a waiver from the financial assurance requirements under 9 VAC 25-650-150. The waiver has to be approved by the local governing body after a public hearing is held. The Board may revoke the waiver at any time for good cause.

The regulation requires that the following three items be submitted with the VPDES permit application for new issuances or reissuance after December 14, 2000:

- Closure plan
- Cost estimate
- Draft financial assurance mechanism

**The VPDES permit should not be issued/reissued unless the closure plan, cost estimate and draft financial assurance mechanism have been approved. Prior to reissuance of a permit to an existing facility, it is the Department's policy that the final, approved financial assurance mechanism must be in place.** Central Office financial assurance staff will review and approve the financial assurance mechanism. The regional office is responsible for reviewing the facility closure plan and cost estimate and for ensuring that the facility closure plan and cost estimate are updated to reflect changes in flow or other facility characteristics that substantially affect the facility closure plan. Technical assistance in the review of closure plans and cost estimates will be provided by OWPP. Contact OWPP for further guidance on these requirements.



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

### TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard, Virginia Beach, Virginia 23462

(757) 518-2000 Fax (757) 518-2103

[www.deq.virginia.gov](http://www.deq.virginia.gov)

L. Preston Bryant, Jr.  
Secretary of Natural Resources

David K. Paylor  
Director

Francis L. Daniel  
Regional Director

March 5, 2009

Mr. Upshur J. Taylor, Owner  
Cardinal Village WWTP  
5021 Holland Road  
New Church, VA 23415

Re: Reissuance of VPDES Permit No. VA0065196  
Cardinal Village WWTP, Accomack County

Dear Mr. Taylor:

This letter is to remind you that your VPDES permit will expire on March 15, 2010.

If you wish to continue discharging, you must reapply for the permit. The State Water Control Board's VPDES Permit Regulation requires that we receive a complete application at least 180 days before the existing permit expires. **The deadline for submitting the application is September 16, 2009.** Early submissions are welcome and will better enable us to complete processing before permit expiration. The instructions and application forms are enclosed. The forms are also available online at the following address: <http://www.deq.virginia.gov/vpdes/permitfees.html>.

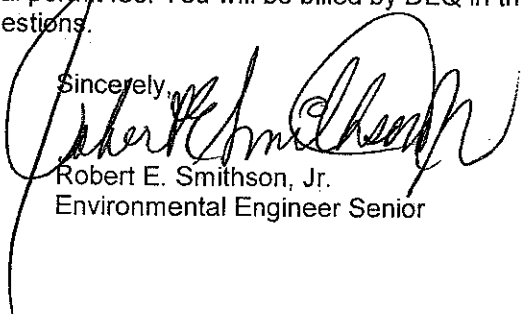
If you would like to request a waiver from any of the sampling or testing requirements in the application forms, you must submit your application and a thorough justification for the request at least 240 days prior to the existing permit's expiration date. These waiver requests must be approved by DEQ and the U. S. EPA at least 180 days before the existing permit expires. DEQ will review your waiver request and, if it is justified, forward it to EPA. Failure to submit the waiver request by the 240-day deadline will result in the waiver being denied.

Upon completing the application, return the original and five copies to the Tidewater Regional Office at the above address. If you have the technology available however, we would prefer that the original signature application and a disk/CD or an e-mail with the application attached be submitted. This would eliminate the requirement of submitting five copies.

We have also enclosed a pamphlet on Electronic DMR submittal and are encouraging all facilities to consider using this system for your DMR reporting.

There is no application fee associated with this re-issuance process. The legislature developed a new fee structure effective July 1, 2004, that eliminated application fees for VPDES and VPA permits. In place of the application fee, the new regulation imposes an annual permit fee. You will be billed by DEQ in the fall of each year. Please call me at (757) 518-2106 if you have any questions.

Sincerely,

  
Robert E. Smithson, Jr.  
Environmental Engineer Senior

Encl: Application  
cc: DEQ-TRO File PPT# 206

**COMMONWEALTH OF VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM(NPDES)**  
**DISCHARGE MONITORING REPORT(DMR)**

Municipal Minor 11/10/2009

PERMITTEE NAME/ADDRESS(INCLUDE  
FACILITY NAME/LOCATION IF DIFFERENT)

NAME Cardinal Village  
ADDRESS 5021 Holland Road  
New Church VA 23415  
FACILITY 6379 Lankford Hwy, New Church, VA 23415  
LOCATION

VA0065196	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY

FROM

Tidewater Regional Office  
5636 Southern Boulevard

Virginia Beach VA 23462

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS  
BEFORE COMPLETING THIS FORM.

PARAMETER	QUANTITY OR LOADING		QUALITY OR CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
001 FLOW	REPORTD			*****	*****	*****			
	REQRMNT	0.006	NL	*****	*****	*****		1/DAY	EST
	REPORTD	*****			*****				
	REQRMNT	*****		6.0	*****	9.0	SU	1/DAY	GRAB
004 TSS	REPORTD			*****					
	REQRMNT	0.23	KG/D	*****	10	15	MG/L	1/M	GRAB
007 DO	REPORTD	*****		*****	*****	*****			
	REQRMNT	*****		6.0	*****	*****	MG/L	1/DAY	GRAB
068 TKN (N-KJEL)	REPORTD			*****					
	REQRMNT	0.070	KG/D	*****	3.0	4.5	MG/L	1/M	GRAB
157 CL2, TOTAL CONTACT	REPORTD	*****		*****	*****	*****			
	REQRMNT	*****		1.0	*****	*****	MG/L	1/DAY	GRAB
159 CBOD5	REPORTD			*****					
	REQRMNT	0.23	KG/D	*****	10	15	MG/L	1/M	GRAB
165 CL2, INST RES MAX	REPORTD	*****		*****					
	REQRMNT	*****		*****	0.0080	0.010	MG/L	1/DAY	GRAB

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS

QL6: CL2 = 0.10 mg/l; CBOD5 = 5 mg/l; TSS = 1.0 mg/l; TKN = 0.50 mg/l

BYPASSES AND OVERFLOWS	TOTAL OCCURRENCES	TOTAL FLOW(M.G.)		TOTAL BOD5(K.G.)		OPERATOR IN RESPONSIBLE CHARGE			DATE			
						TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY	
<p>I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.</p>						PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT			TELEPHONE			
						TYPED OR PRINTED NAME			SIGNATURE			
						TYPED OR PRINTED NAME			SIGNATURE			

Municipal Minor 11/10/2009  
DEPT. OF ENVIRONMENTAL QUALITY  
(REGIONAL OFFICE)

PERMITTEE NAME/ADDRESS(INCLUDE  
FACILITY NAME/LOCATION IF DIFFERENT)

NAME	Cardinal Village	
ADDRESS	5021 Holland Road	
	New Church	VA 23415
FACILITY	6379 Lanford Hwy,	
LOCATION	New Church, VA	23415

VA0065196	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD					
YEAR	MO	DAY	TO		
			YEAR	MO	DAY

FROM

**NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM.**

[illegible]

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS

Q1s: CL2 = 0.10 mg/l; CBOD5 = 5 mg/l; TSS = 1.0 mg/l; TKN = 0.50 mg/l

BYPASSES AND OVERFLOWS	TOTAL OCCURRENCES	TOTAL FLOW(M.G.)	TOTAL BOD5(K.G.)	OPERATOR IN RESPONSIBLE CHARGE		DATE			
				TYPED OR PRINTED NAME	SIGNATURE	YEAR	MO.	DAY	
I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED, BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.									
				TYPED OR PRINTED NAME	SIGNATURE	YEAR	MO.	DAY	